wtf?

The role of netspeak on levels of distress in internet based therapies and subsequent impact on therapist understanding

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WTF? THE ROLE OF NETSPEAK ON LEVELS OF DISTRESS IN INTERNET BASED THERAPIES AND SUBSEQUENT IMPACT ON THERAPIST UNDERSTANDING

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Part Two: Research

Abstract

Internet-based therapies are growing in number and popularity and cover a diverse range of practices for both individuals and groups. In concordance with the hyperpersonal theory and online disinhibition effect, people more readily disclose personal information when conducted via the internet. Due to technological constraints and social interactions, a non-standard language developed and has widely been termed “netspeak” (Crystal, 2006). Emotional words are processed differently to non-emotional words. Further, people do not connect with abbreviations on the same emotional level as they do when the words are written in full.

Three studies were conducted: the first focused on assessing if a short emotionally evocative mini-biography had an emotional impact on participants. This material was then used in a second study which was a mass-testing of 62 young people on whether netspeak can change the impact on mood. The study used 3 conditions whereby participants re-wrote the mini-biography into either full English, using Netspeak or in their own words. A new vignette was created from the Netspeak condition to use as material for a third study. This final study was conducted via email into how much a psychological therapist understood what had been written in the Netspeak vignette.

No differences were seen from re-writing an emotional biography in netspeak to English. Although psychological therapists demonstrated some understanding of the netspeak vignette, there was evidence of misinterpretation, presumption and misunderstanding suggesting that there may be some barrier to communication in internet therapy. The clinical implications of this research suggest that psychological therapists need to reflect on their practice in order to be aware of the level of assumption that can be made during therapy.

Chapter 1: Literature Review

1.1 Overview

This chapter will provide a broad review of current literature regarding the efficacy of internet therapies and of using them for different disorders and language styles. It will incorporate a comparison to traditional therapies, neurolinguistic and neuropsychological interpretations of communication before discussing the implications for therapeutic practice and potential further research. This includes evidence on how acronyms are processed differently to standard words which can suggest that netspeak is processed differently to normal communication approaches. However, this has not been studied thus far and there is little evidence of any study integrating any of these approaches. The purpose of this review is to demonstrate a theoretical framework in which to place the following research report. In doing this, the review will illustrate a lack of research and understanding of the emotional processes in therapeutic communication using netspeak.

One of the difficulties in researching internet therapies is the lack of consistent definition between studies. Even though a study will describe its own therapy protocol, it will then broadly describe other research as simply internet or online therapy. Proudfoot, Klein, Barak, Carlbring, Cuijpers, Lange, Ritterband & Andersson (2011) developed a framework of guidelines for research on internet interventions. This was in response to a continuous and rapid development of the use of the internet for health related services but without any clear definitions. However, much of the research from Europe and Australasia does not appear to be concerned over definitions or different types of therapy or intervention therein, preferring to simply describe 'internet therapy' and that it can contain anything from computer-based programmes and psycho-education to virtual reality to emails and fora or psychological therapist support via text messaging. Without a consistent framework, there is some difficulty in comparing research in this area. The majority of research relates to text-based therapies, such as email, message board or computer-aided programmes, with

very little discussion on therapies conducted via webcam, for instance. As such, and for clarity, this report refers to internet based therapies as being text-based.

1.2 How language is processed

Psycholinguistics is a relatively new form of research which combines psychology, neurobiology, cognitive sciences and linguistics in order to further understand the use of language skills – from developing and learning language(s) to the processes involved in understanding them. There is little difference in the processing involved in recognising either long or short words. The visual process of recognising that a word is familiar is not strongly affected by the length. (This is, however, different to if the word is to be spoken aloud). Visual word recognition requires that letter strings are processed in parallel as opposed to serial – one-by-one (Brysbaert et al, 2009).

The lexical entrainment theory refers to the phenomenon by which both parties of a conversation use the same reference terms in order to clarify communication and understanding between them (Garrod & Anderson, 1987). It suggests that there is a significant adoption of terminology from the original source and argues that it is, further, a powerful addition to conversation which occurs naturally in everyday communication (Bromme, Jucks & Wagner, 2005). The lexical constraint hypothesis assumes that regardless of the question or who asks it, experts prefer to use their subject-specific and technical language simply because they automatically think in in this style. This postulates that being an expert in any specific field will automatically limit the ways in which a specialist will communicate it. This would obviously have implications for conducting therapeutic interactions online and psychological therapists having to consciously re-word some of their communications.

What started out as shorthand for use in internet discussions has become increasingly accepted in mainstream media and academia – for example CSA – childhood sexual abuse (Bonanno et al, 2002).

There are different processes involved in processing the meaning of the two terms. But, equally, the initials are more vague and ambiguous. For instance, CSA can also be interpreted as Child Support Agency, Clinical Skills Assessment, Chemical Safety Assessment and community supported agriculture, amongst many others. Depending on a persons' social or working life, these initials could be instantly recognised and seem out of place as the effect of priming is in action – what is seen or read will be directly influenced by what a person expects to see or read.

1.2.1 Language and Emotion

Spoken language can be divided into two parts – linguistic – what the person actually says – and non-linguistic (also called vocal or nonverbal) – how a person says something. This includes vocal tone, speed and other idiosyncratic traits – what makes a person's speech uniquely theirs. The combination of these aspects is essential in allowing the listener to accurately and clearly understand the speaker (Crosson et al, 1999; Holmes, Matthews, Mackintosh & Dalgleish, 2008). Further, non-linguistic features in speech are preserved in a person's memory so that words spoken in the same tone are recalled more accurately then when the tone differs (Church & Schacter, 1994). Emotional tone of voice is usually easy to identify by the listener and is related to the emotional meaning of what is being said. The emotional tone of a word is instrumental in how people process linguistic content (Nygaard & Queen, 2008). However there needs to be congruence between the vocal emotional style and the meaning of the word to facilitate understanding. For instance when discussing a happy experience, it would need to be spoken about in an upbeat, positive way for optimal linguistic processing.

When reading emotional words, there is an automatic allocation of both attention and visual processing compared to words that are neutral. This has further been demonstrated physiologically with the use of EEG and MRI showing that emotional words elicit an increased blood-oxygen level dependent (BOLD) response (Tabert et al 2001). One of the reasons postulated for this is that the

processing is thought to be mediated by the amygdala, a part of the brain responsible for emotional processing (Koban, Ninck, Li, Gisler & Kissler, 2010). Isenberg et al (1999) studied how the amygdala is primarily responsible for feelings of fear and aggression in relation to emotionally threatening words and found higher activity when using positron emission tomography (PET) scans. The majority of studies in this area have relied on participants reading aloud during activities, however, similar results were found when participants were given no further instruction than to read text: silent reading of emotional adjectives were linked with enhanced activations in the visual, limbic and prefrontal brain regions (Herbert et al, 2009).

Kissler, Herbert, Peyk & Junghofer (2006) found that emotional words were associated with an increased response in the left occipito-temporal regions and were also spontaneously recalled better than neutral words, thus suggesting that there is an enhanced prominence of emotional features and characteristics when people are reading. Koban et al, (2010) further found an increase in the visual cortex activity when participants were presented with flickering emotional words compared to those that were neutral.

There is, however, little research into emotionally significant stimuli when compared with acronyms or abbreviation. Further, there is a dearth of studies investigating potentially emotional acronyms or netspeak, perhaps as it is a relatively new and still developing area.

1.2.2 Processing acronyms

Acronyms can be defined in two ways – the traditional definition where the initials create a recognisable word, such as WHO (World Health Organisation) also described as orthographically legal, or what were termed initialisms – initial letters that cannot be read as a word, such as NHS (National Health Service) also described as orthographically illegal, where orthographic denotes how a word looks and legality refers to whether the item follows the normal rules of that language, for

instance, virtually all English words must contain a vowel. This distinction is largely no longer used and acronyms has become the more standard term (Brysbaert, Speybroeck & Vandereslt, 2009). However, Slattery, Schotter, Berry & Rayner (2011) suggest that there is an important distinction to be made between acronyms and initialisms due to their different orthography-to-phonology mapping, i.e. the way a word looks and sounds. So, a typical acronym looks the same way as it sounds (eg. NASA, UEFA), effectively it has been turned into a word (lexicalised). Typical initialisms, however, have to be spelled out (eg. DVLA, BPS) and so cannot be lexicalised. This, therefore, should impact on how each of them are processed: Laszlo & Federmeier (2007) demonstrated that acronyms and pseudowords were not differentiated by their processing. Words, pseudowords and familiar acronyms use the same processing of understanding. The acronyms were processed in a similar way thus suggesting that acronyms are not processed in the same way as real words, as was previously thought. This means that, whilst the letter strings look like and follow normal linguistic rules of words, they have no meaning.

Where acronyms don't follow language rules, Brysbaert et al (2009) suggest that they are instead seen as a collection of short words; "that the phonological representation of BBC might simply be the three-syllable word BeeBeeCee" (p1838). Slattery, Pollatsek, and Rayner (2006) tested this by investigating how people read the acronyms when part of a sentence and if they naturally applied standard grammar to the sentence in treating the acronym as a word. This was done by seeing if people preferred to use 'a' or 'an' before acronyms such as FBI and USA. In order to fit within the English grammatical rules, 'a' should precede words beginning with a consonant, however found that people preferred 'an' which would fit with the phonological pronunciation of the letter F in this acronym. "There is some evidence that orthographically illegal acronyms have their own multisyllabic phonological representation consisting of the full letter names" (Slattery et al, 2011, p1838). So, whilst acronyms are not processed as real words, they are consistently processed as pseudowords and also phonologically read as such.

Following Slattery et al's (2006) research into how initialisms were read with the article preceding it changed, Slattery, et al, (2011) investigated if the same process happened with acronyms. They found that participants were more likely to skip abbreviations or acronyms when it was part of a sentence in all capitals, as opposed to when only the acronym was capitalised. There was a further potential bias for people to process all capitalised letter strings as initialisms – a system which is mostly used to save time or resources in processing. Their research concluded that readers employ different processing when reading initialisms and acronyms and that capitalisation versus lowercase has an impact. "At some level, all abbreviations abstract the meaning of text in order to reduce orthographic and/or phonological length" (p. 1028) but notes the unusual exception of WWW, where each initial is three syllables long yet replaces words of only one syllable. It is further interesting to note that as netspeak is used to replace verbal communications, it has, in fact, done some of the opposite so that aspects of netspeak have been incorporated into the normal lexicon. For instance, there have been repeated occurrences of television characters expressing "OMG" instead of the more usual "oh my god."

1.3 What is internet therapy?

A recent development in use of the internet is that of providing therapeutic services; an increasing number of people are choosing to look to the internet in order to find information on and access therapy (Anthony & Nagel, 2009). People search for health-related information before seeing a professional, either to attempt to manage their own health or to judge if they need to see a professional, and after seeing a professional, to confirm and better understand a diagnosis or where they disagree with the professional they saw (McMullen, 2006). It can improve general knowledge dissemination from professionals to the wider population and promote good health practices and individual responsibility (Benigeri & Pluye, 2003). It has, however, been associated with an increased risk of depression, with the suggestion that this is due to increased rumination or over-preoccupation with health problems (Bessière, Pressman, Kiesler & Kraut, 2010). There are also

concerns over the reliability and quality of health-related information as well as actually finding and using it (Benigeri & Pluye, 2003).

Offering therapy over the internet is still a relatively new and developing field and has not been widely adopted by any major healthcare organisations. Currently, in the UK, it is mostly offered by psychological therapists or organisations who work privately. As such, there is no data on how many people use (or offer) internet therapy or if a preference exists between using internet and traditional therapies. There is also no data as to which types of therapy are offered over the internet – email, instant messaging, skype, for instance – and so there is no data on which method is preferred (by either clients or therapists), which is more effective, nor whether it is a popular option for clients. Currently, therefore, it is difficult to judge internet therapies on any ground other than academic and research interests.

Internet-based therapy (also described as e-therapy and online counselling) covers a diverse range of practices and can be for both individuals and groups. It can take the form of online chat sessions conducted simultaneously between the psychological therapist and client(s), via e-mail or making use of a forum, where comments can be read and responded to at the user's convenience (Goss & Anthony, 2009). Internet therapy provides a level of privacy and access which is unparalleled in face-to-face therapies (Hanley & Reynolds, 2009). In order to speak with a psychological therapist in the UK a client must first be referred by a GP to an NHS service or be prepared to pay to see a psychological therapist privately (NHS, 2011). With the former, this can require a client to explain their circumstances to multiple people – first their GP, then a mental health specialist who will assess their level of need before being offered an appointment with a psychological therapist. Each of these stages will incur a waiting time and there are limited appointment opportunities which usually fall within a normal working day.

Private therapy is often a quicker process – a phone call (or email) and an appointment that is mutually convenient (BACP, 2010). It does, however, incur a cost and the client may not know how to locate a suitable psychological therapist. There are also websites offering immediate access (www.psychologyonline.co.uk, for instance) – an individual simply logs on, pays a fee and is instantly connected to a psychological therapist (whether this is a good thing or not remains to be seen). There is no reason why the same variety of therapeutic approaches that are used in face-to-face therapies should not also be practised online. However, it appears as though only a few approaches are practised, for instance Cognitive Behavioural Therapy (CBT), behavioural therapy and relationship therapy (Looi & Raphael, 2007; Griffiths, Calear & Banfiel, 2009).

Despite the acceptance of internet based therapies and the recent surge of literature therein, there remains a lack of coherence and understanding about it, from the basic terminology to the structure and practice. As such, Barak, Klein & Proudfoot (2009) created definitions based on current literature; they created four sub-categories: web-based interventions, online counselling and therapy, internet-operated therapeutic software and other online activities.

Web-based intervention was defined as "a primarily self-guided intervention program that is executed by means of a prescriptive online program operated through a website and used by consumers seeking health- and mental-health related assistance. The intervention program itself attempts to create positive change and or improve/enhance knowledge, awareness, and understanding via the provision of sound health-related material and use of interactive web-based components" (p5). This incorporates self-guided, person supported and educational support. The most common style is computerised CBT (cCBT), a computer programme based on psychoeducation – teaching the client how to use the principles of CBT (Whitfield & Williams, 2004; Topolev-Vranic, Cullen, Michalakm Ouchterlony, Bhalerao, Masanic & Cusimano, 2010).

Online counselling and therapy can be conducted with groups or individuals and in either a synchronous or asynchronous format (Chester & Glass, 2006). The article, however, does not go on to qualify specific detail as to how the therapy can be conducted other than that it is usually written but, that as the cost of computer peripherals decreased, it could include audio and visual means, via webcams or headsets. The only examples given as to how the therapy may proceed are the same as how people usually communicate on the internet, such as chat room and instant messaging.

Internet operated therapeutic software can encompass chatbots, where a programme learns and emulates a human response. This was demonstrated in Trepagnier, Olsen, Botelor & Bell (2011) where adults with Autism highly rated the interaction provided by a virtual conversation partner in learning social skills. Also within this category, the authors have included programmes such as Second Life – a massive virtual reality game. This seems an odd inclusion as the software is just a platform by which people can 'meet' and talk – it is also a game and is not designed to be therapeutic (Jin & Lee, 2010).

Their final category, other online activities, includes personal blogs, online support groups and Twitter, where people profess their own opinion or experiences. Although the authors define that the purpose of online support groups are to provide "relief, empathy and emotional support" (Barak et al, 2009, p12) and that this may (or may not) have a facilitator, it is not clear how this is particularly distinct from either online counselling or web-based interventions.

Using the internet for therapeutic services tends to fall into two categories – peer-support, where there is no official mental health specialist, and professional, where there is obvious input from a practitioner (Chester & Glass, 2006). It could be further sub-divided into websites that offer information only and signpost where to access help and websites which specifically offer support, however, more often than not, these two coincide (Messina & Iwasaki, 2011).

There have been a number of non-traditional approaches to therapy investigated recently which include interactive media such as DVDs and CDs, virtual reality programmes, email and mobile phone text messages and internet based therapy (Segal, Bhatia & Drapeau, 2011). When conducted via the internet, therapy can fall into a number of different formats (Crystal, 2006):

- Email – a set length of email is written by the client to the psychological therapist (there is often a word limit imposed by the therapist). The therapist then responds through email within a set time-frame (usually up to 72 hours). The client and therapist agree on the total number of emails as well as the length of each and the format for the replies should be laid out (Robinson & Serfaty, 2008; Sánchez-Oritz, Munro, Startup, Treasure & Schmidt, 2011).
- Message Board –a psychological therapist creates a private message board and invites the client. Messages left by the client are responded to within an agreed time frame. Like email, this is asynchronous (Miller & Gergen, 1998; Griffiths, 2005; Bender, Radhakrishnan, Diorio, Englesakis & Jadad, 2011). This is also a common form of peer-support for a variety of health-related issues, such as cancer (Schultz, Stava, Beck & Vassilopoulou-Sellin, 2003; Bender, Wiljer, To, Bedard, Chung, Jewett, Matthew, Moore, Warde & Gospodarowicz, 2012), sexual disorder (Malesky & Ennis, 2004), eating disorders (Zabinski, Wilfley, Calfas, Winzelberg & Taylor, 2004; Lyons, Mehl & Pennebaker, 2006), pain management (Rodham, McCabe & Blake, 2009) and self-harm (Whitlock, Powers & Eckenrode, 2006).
- Chat room – the psychological therapist creates a private chat room and invites the client to join them for a scheduled amount of time (30-60 minutes). Responses are fairly instantaneous, although this can lead to responses from both the client and therapist appearing at the same time, which can be confusing (Barak & Bloch, 2006; Golkaramnay, Bauer, Haugh, Wolf & Kordy, 2007).
- Skype – using webcams (or tablet computers) to create video-mediated communication – with the client and psychological therapist in separate locations. This is the most similar to

face-to-face therapy, however internet connections may not be reliable or working at similar speeds, meaning the picture and sound can be jumpy or pixelated (Armfield, Gray & Smith, 2012). Very little research has been published on the efficacy of this style of therapy.

- Text Message – not a common approach yet, most notable use is by The Samaritans (2012). Clients text the provided number and a psychological therapist replies within a set time frame (Preziosa, Grassi, Gaggioli & Riva, 2009). This can also include automated text messages, used as a reminder to check moods and behaviour (Aguilera & Muñoz, 2011). This is obviously limited by the number of characters than can be used.

At first glance it can appear as though internet and face-to-face therapies are very different, especially with the constraints, for instance, unlike traditional face-to-face therapy, email, text message or forum posts have an unavoidable in-built time difference. Face-to-face therapies have a well-established and documented efficacy – both for specific approaches and in response to the therapeutic relationship (Cooper, 2008). As such, there is a debate over whether therapy conducted via the internet or other CMC approaches can be as effective as face-to-face (Lampe, 2011).

1.4 The efficacy of internet therapy

As the way people are accessing information changes, then so too must the services. Internet based therapies have demonstrated their efficacy for the more common mental disorders, such as mild-moderate depression and most anxiety disorders (Titov et al, 2009). They are effective alone and can also be successfully integrated alongside traditional therapy approaches thus demonstrating that different ways of making contact with clients could be effective.

In a comparison between a national survey and an outpatient clinic, there were no differences found in the severity of symptoms described by people presenting for treatment of depression or anxiety (Titov, Andrews, Kempy & Robinson, 2010) in the characteristics of adults with anxiety or depression

treated at an internet clinic. Further, Andrews, Davies & Titov, (2011) found that there were no differences in the outcomes between participants allocated to internet CBT or face-to-face CBT. There was a profound difference in the amount of time allocated to participants – it was 13 times greater in the face-to-face group than via the internet. This demonstrates how cost-efficient it would be to provide therapy via the internet and thus one psychological therapist could work with far more clients over the internet than face-to-face. However, due to a relatively small sample with a moderate effect size, these results should be approached with a level of caution. Hollingshurst, Peters, Kaur, Wiles, Lewis & Kessler (2010) defined cost-effectiveness as taking into account personal cost to the client, such as transport costs, loss of earnings and medication as well as costs to provide care, such as hourly rates of professional staff. In a comparison to a face-to-face CBT programme, an internet therapy based in real-time was likely to be cost-effective, although some of this is attributed to the number of participants withdrawing from the therapy and that professionals charged a lower fee to the NHS when offering internet therapy. However, the number of people who withdrew from the internet CBT condition was 3 times higher than that of face-to-face. This further does not take into account the number of people who chose to leave the study before the conditions were allocated as they did not want to participate in an online treatment programme. The low number of people taking up an offer of internet therapy as well as the high dropout rates can be attributed, in part, to a lack of personal contact and the need to tailor the approach to the client but also, to the practicality of using computers and the internet (Christensen, Griffiths & Farrer, 2009). Adherence to treatment programmes were directly influenced by telephone contact from a psychological therapist in support of the internet based therapy (Andersson et al, 2011). This further had an effect on the overall outcome measures in that people who spoke with a psychological therapist had a larger reduction in symptoms and negative cognitions. This could also be attributed to secondary benefits, such as an increase in locus of control and self-confidence. However, it could also be noted that one of the key symptoms of depression is a lack of motivation and completing a course of internet therapy requires both strong self-motivation and commitment for recovery.

The majority of research conducted on internet therapies has been to investigate the outcomes of short term (or time-limited) therapy, i.e. on a measurable scale, do levels of distress change from the initial session to the final session, usually between 4 – 6 weeks? As such, a critique of the efficacy of internet therapies is the lack of data collected after the therapy has ended, which would provide a measure of reliable and lasting change (Nicholson & Berman, 1983; Lambert, 2007). In response to this, Knaevelsrud & Maercker (2010) completed follow-ups of participants at 3 and 18 months to investigate Post-Traumatic Stress Disorder (PTSD). The treatment protocol prescribed 10 sessions offered over 5 weeks - participants were given a 45-minute writing task twice a week. Results of the psychometric tests and outcome measures indicated that the scores given by participants at completion of the therapy protocol were similar at both the 3 and 18 month follow ups. Similar results have been seen with face-to-face therapies, where the outcome at the therapy conclusion remains the same at follow-up (Nicholson & Berman, 1983).

There does not seem to be a limit to the issues or disorders which can benefit from internet based therapy. From the more common anxiety and depression (Christensen et al, 2009; Griffiths et al, 2009, Hollinghurst et al, 2010), to eating disorders (Fernandez-Aranda et al, 2009; Robinson & Serfaty, 2008), phobias (Botella, Quero, Banos, Garcia-Palacios, Breton-Lopez, Alcaniz & Fabregat, 2008), social isolation, post-traumatic stress disorder (McLay, Wood, Webb-Murphy, Spira, Wiederhold, Pyne & Wiederhold, 2011) and sexual dysfunction (van Dienst, van Lankveld, Leusink, Koos Slob, & Gijs, 2007).

Bell (2007) reports that whilst there is an overwhelming majority of positivity towards therapeutic use of the internet, there remain some concerns over small but strong groups on the fringe of mental health disorders, often referred to as extreme communities (Rodgers, Showron & Chabrol, 2012). The most publicised of which are the pro-eating disorder communities – pro-ana (anorexia)

and pro-mia (bulimia); websites and fora that provide advice and support on becoming and remaining thin as opposed to supporting recovery. Whilst these have been widely condemned as preventing people from developing a more healthy approach and recovering from eating disorders, they do still provide a service whereby a social identity can become de-marginalised; people receive support and a sense of belonging when expressing very dysfunctional and unacceptable thoughts and feelings (McKenna & Bargh, 1998). This has been shown to reduce feelings of anxiety and increase understanding of the eating disorder (Fox, Ward & O'Rourke, 2005; Lyons, Mehl & Pennebaker, 2006; Mulveen & Hepworth, 2006).

As can be seen, there is a growing amount of evidence demonstrating the efficacy of internet based therapies, however, it is still a field in its infancy. As such, it is therefore expected that there is little data on the long-term effects of internet based therapies. This is, therefore, a common criticism of the majority of studies in this field, although this does not appear to be affecting the popularity of it as a medium by which to conduct therapy (Fletcher-Tomenius & Vossler, 2009; Griffiths, Calear & Banfield, 2009; Hanley & Reynolds, 2009).

1.5 Advantages and disadvantages of internet therapy

There are a number of advantages and disadvantages of using internet therapy when compared to more traditional forms of therapy. This can alter with the type of therapy – for instance, guided self-help programmes require minimal psychological therapist involvement, meaning that a therapist can work with more people in their work day then in face-to-face therapies (Andrews & Titov, 2010; Andrews, Davies & Titov, 2011).

1.5.1 Increased access to professional support

Internet based CBT programmes can provide easily accessible and effective therapy for anxiety disorders without the need for intensive psychological therapist involvement; this would, therefore

follow, that there could be an increase in the number of people able to access treatment (Pier, Austin, Klein, Mitchell, Schattner, Ciechomski, Gilson, Pierce, Shandley & Wade, 2008).

Further, it can reduce barriers for people who are seeking help. Alongside the general stigma of attending a specialist psychological service, there is a lack of qualified specialists meaning that there are often long waiting lists before being able to access support. This is further complicated by the majority of services and practitioners who, especially in the NHS, conduct their sessions during normal workday hours which will often impact on a person's availability to attend appointments if they are also working. Even with a supportive employer, people may not wish to disclose their mental health (Titov, 2007). There is a particular advantage for people who are physically unable to access mental health services; this can be due to a disability or geographic location, specifically if people live in a very rural location (Pier et al, 2008).

People find support and comfort from finding like-minded individuals or people experiencing similar circumstances. They remind people that they are not alone which, in itself, can be all that a person requires – the knowledge that someone else has got through it. However, there are times when, to the outside world, this can be a cause for concern. Online communities for eating disorders can encourage dangerous and harmful weight loss and unhealthy weight-control practices (Rodgers et al, 2012). The people who join the pro-ana online communities are driven to do so by finding support from others who also wish to lose weight and the motivation that being thin equates to being happy. Repeatedly using message boards can also prevent people from seeking out other help, such as seeing a doctor or counsellor as they are receiving support via the website (Barak & Dolev-Cohen, 2006). Not only can behaviour be escalated and perpetuated by only ever speaking to others who, for instance, are actively self-harming but also when users write scathing comments about what has happened to them in counselling or the NHS it is likely to dissuade someone from seeking professional help.

It further allows people to give their own response and opinion to others, specifically on support forums for people or families and friends of people who experience different mental ill health; these can be specific – for instance, for self-harm or eating disorders – or generic – such as coping with mental illness(Hanley & Richards, 2009). Although these websites specifically state that users are not counsellors or trained professionals, there are often many instances and posts where a user acts as a therapist, often bringing up topics or comments from their own counselling (Greidanus & Everall, 2010). Even when trying to respect another's personal opinion offering advice that is based on their experience, it can still be potentially dangerous when a person tries to counsel another based on personal experience alone.

1.5.2 The therapeutic relationship

The relationship between the psychological therapist and the client is often seen as the most important aspect of productive therapy; the strength of the relationship positively correlates to the therapeutic outcome (Cooper, 2008). As such, the biggest criticism of internet therapy is that it lacks the interpersonal contact which would facilitate creating a therapeutic relationship. The majority of approaches state that the therapeutic relationship is paramount in psychological therapies. There is a strong correlation between the depth of the therapeutic relationship and general outcome measures (Mearns & Cooper, 2005). As such, it is a regular debate as to how effective can therapy actually be when it is conducted by people who are likely to never meet face to face.

However, not being in the same room cannot always be considered a disadvantage. An example where this could be beneficial is with clients who have a difficulty with intimate relationships, staying sat in one place for a length of time or clients who feel strongly ashamed of their emotions or experiences. The distance and relative anonymity provided by being behind a computer screen could allow the client to feel a greater sense of control over the emotions and content that they discuss. This has been referred to as the online disinhibition effect whereby people feel more

comfortable in disclosing personal information quicker than in a face-to-face discussion due to feeling less restrained (Suler, 2004). This, in turn, would begin the process of feeling comfortable with a psychological therapist and the beginning of a relationship. The ability to offer another person unconditional positive regard, empathy, honesty and understanding is a valuable process to any form of therapy and there are more ways to demonstrate this, than by sitting opposite the client.

A study commissioned by the American Psychological Association investigated whether there were any links between therapeutic outcomes and the therapeutic relationship: "It did not seem to matter much whether therapists practised from a cognitive-behavioural or interpersonal standpoint, but what did matter was how allied the clients felt they were with their particular therapist" (Mearns & Cooper, 2005, p2). As research into internet therapy is still in its infancy, there is little information on the therapeutic alliance when not conducted face-to-face. In fact, there is actually a small amount of research currently conducted on whether clients feel a strong alliance with their psychological therapist in the traditional therapies – the focus of research has a tendency towards efficacy and outcome. That said, there has been evidence of empathic, close and allied relationships being formed and maintained in internet therapies (Fenichel, Suler & Barak, 2002). For example, Lewis, Coursol & Wahl (2004) found that both psychological therapists and clients have experiences similar to those of face-to-face therapies and that the therapeutic alliance is similar, and sometimes stronger, with internet based therapies (King, Bambling, Reid & Thomas, 2006; Cook & Doyle, 2002).

Lampe (2011), therefore, questions if actual psychological therapists will still be relevant for therapy and whether a generic internet-based therapy protocol is sufficient as opposed to a more individual approach. However, this is in contrast with studies that seem to consistently demonstrate that there is a lower dropout rate from therapy when a person has direct communication with a therapist (Andersson, 2009). However, Pier et al (2008) found no differences in the dropout rates between support offered face-to-face or solely by email. Internet based therapies have, so far, been restricted to a fairly limited population, for example those who have a good level of education and are of

normal working age. There is little evidence as yet of internet based therapies meeting the needs of those less well educated, economically poorer or younger people (Fox, 2011).

Internet therapy is at its most effective when it meets the following criteria: a clear diagnosis during assessment, a comprehensive treatment protocol is demonstrated, the treatment is logical and user-friendly and finally, that there is support and a clear deadline provided for the treatment (Andersson, Estling, Jakobson, Cuijpers & Carlbring, 2009). Standard treatment protocols where there is no psychological therapist involvement can leave potential ambiguity or room for interpretation. It also does not take into consideration individual therapist effects and how this can impact on the therapeutic interventions. Direct personal involvement with a psychological therapist could be beneficial to the client if an issue is raised within the therapy that is not covered by the standard treatment protocols. With psychological therapist involvement there can be a more targeted approach to the client which would allow them to achieve larger therapeutic change (Almlöv, Carlbring, Berger, Cuijpers & Andersson, 2009).

Even without direct contact with a psychological therapist, there were additional elements of human interaction from people who had completed the therapy course previously; this came in the form of previous participants' comments made on a forum about homework tasks and their own progress. This cannot replace the guidance from a qualified psychological therapist, however it is experience from someone who 'knows more' than the participant, having already been through it; therefore providing external support and encouragement (Titov, Andrews, Choi, Schwencke & Johnstone, 2009).

Rogers, Griffin, Wykle & Fitzpatrick (2009) found that amongst young adults who prominently used the internet, 80% preferred to access face-to-face therapy as opposed to internet therapy – both offered a one-to-one session of therapy, either in the psychological therapist's office or online. No

reasons were described for this choice, however it is of interest to note that almost 60% of participants had received face-to-face therapy in the past. They found that there was a significant difference in how much the client was willing to self-disclose, particularly around more negative emotions. The face-to-face clients were more willing to discuss emotions such as fear, depression, jealousy and anxiety than those using the internet, although all clients indicated a moderate-to-high willingness to disclose. As level of disclosure is indicative of the therapeutic relationship and therefore the likelihood of positive change, it could be assumed from this that the group accessing face-to-face therapy would have better outcomes at its conclusion. When it came to discussing more socially acceptable emotions, such as happiness, calmness, anger and apathy, there was no significant difference between therapy provided over the internet or face-to-face. The authors offered no explanation for their findings which seem counter-intuitive to other research in online therapy which reported similar outcomes for online and face-to-face sessions. It further goes against accepted CMC theories such as the online disinhibition effect and hyperpersonal theory, both of which have repeatedly shown that people are more willing to disclose and develop quicker, more intimate relationships than face-to-face (Walther, 1996; Suler, 2004). The results could be interpreted as a possible uncertainty in using internet therapy, especially by the participants who had previously accessed face-to-face therapy. Whilst this still suggests the opposite to established theories in CMC, it may question the intent behind what a person discloses – whether it is done to forge a relationship, as a recreational activity or as a help-seeking behaviour.

Therapeutic use of the internet is not exclusive to psychology. There have been strong indications that speech and language therapy conducted over the internet has demonstrated high efficacy for improvement in word retrieval skills in people with Aphasia (Mortley, Wade & Enderby, 2004). There was a further benefit in that it allowed participants a high degree of independence in their own treatment.

1.6 Ways in which people communicate

Communication is the cornerstone of counselling psychology. The way in which people communicate is constantly shifting and evolving and research must reflect this. This work will contribute to the area of Counselling Psychology in two ways. First, it will demonstrate the level of understanding, or lack thereof, of the use of this language by people and organisations that offer therapy via the internet. Secondly, it will provide a possible alternative way of working with clients who are struggling to engage in therapy as they are anxious of the level of emotion involved in what they wish to say.

In communication during therapy, it is often important to use the client's words and phrases. In some models, it is essential to the therapeutic process, for instance client-centred therapy and personal construct therapy. With some populations, this can be obvious. For example, it is common practice, when working with teenagers for a therapist to swear more. This can further demonstrate to the client that they will not be in trouble for using what may be their normal way of expressing themselves and that the psychological therapist is not coming from a position of authority as many of the adults in a young person's world are. For most adults seeking therapy, there are often no obvious language differences and so it can be difficult to help strengthen the relationship in this manner. However, using the client's language can be far more obvious when it is written down.

Facial expressions can provide a rich form of communication and are the predominant form by which people convey emotion within a social context. They are further instrumental in regulating and continuing social interactions in providing cues for others, such as when to respond and when to change subjects (Bonanno, Keltner, Noll, Putnam, Trickett, LeJune & Anderson, 2002).

Further, the authors suggested that their research could help in the identification of women who had experienced sexual abuse in childhood from women who had not and that, following this, it could be used to help legitimise a person's account. They do, however, recognise that this would be almost impossible for a psychological therapist to do in 'real-time' and that there would need to be

considerable further research conducted. The research does suggest that there is a need to conduct therapy face-to-face in order to gauge the level of shame or disgust a person feels when discussing past sexual abuse as this can be indicative of where the client believes the blame lies for what happened and how ready they are to begin to talk about it. These emotions are particularly difficult to convey over the internet and so a psychological therapist may be at a disadvantage in helping a client for these issues.

Similarly, one cannot make assumptions as to the reason a person uses an emoticon such as a smiley face as only the writer knows their true purpose for using it. It is, none-the-less, presumed to convey a sense of positivity and happiness – that the writer was in a good mood when writing or that they felt happy for writing it. Whether people interpret the emoticons correctly or not, they do rely on the use of emoticons to form an impression of a writer's warmth and friendliness (Fullwood & Martino, 2007).

1.7 Netspeak

Societies and communities create and shape their own culture and, with that, language (Pinker, 2008). The rise in use of the internet brought with it a new way in which to communicate and, with this, a new debate by experts, researchers, lay-people and journalists on exactly what to call it. Early descriptions included computer mediated communication, electronic discourse, cyberspeak, internet language and weblish, amongst many other variations. The term 'netspeak' appears to have come about as a response to avoid some of the more long-winded descriptions and as a distinct nod to George Orwell's creations of Newspeak and Doublespeak (Crystal, 2006).

Text messaging seemed to greatly influence the use of netspeak due to the restrictions on characters, much in the same way that telegrams used to as they were priced per word. With the advent of new technology in mobile phones, this is no longer as big an issue as the number of

characters in a text message has increased greatly. However, as twitter increases in popularity, this could spur on the use and development of netspeak due to its strict 144 character limitation, meaning people have to express their points in only a sentence or two, thus placing great importance on brevity.

Trying to treat spoken language the same as written and written language to be interpreted as speech is a complex operation with a number of potential problems. The biggest difference for this is in static or asynchronous communications such as those found on message boards or the increasing use of Facebook. As such, communication can be frustrating and confusing, with responses taking time to type or be sent versus when it actually appears on another person's screen. This complication increases exponentially the more people are involved in an online conversation, where responses may not always follow questions and interactions regularly overlap. The use of netspeak in CMC can serve to reduce the time it takes to type regular phrases and to promote in-group identity (by excluding those who do not understand).

Netspeak is not limited solely to English speaking countries, Crystal (2008) gives examples of eleven languages which have created their own netspeak; this includes Chinese and Japanese, languages which do not stem from Latin alphabets. As such, different keyboards are in use for languages which use Arabic, logographic and phonetic alphabets. However, users of netspeak for these languages have created a merged version of netspeak, whereby phrases remain in their own language but are then mapped onto the closest English or numerical keys.

This lack of physical presence in communication over the internet is why emoticons developed; it was created by users in order to put emotion into their words (Crystal, 2001). Emoticons are made up of letters and punctuation that are common on keyboards to that they can be universal and can be used to explain, without words, that the author is happy, sad, angry, surprised, crying or laughing

and more. In doing this, they denote a specific emotional facial expression. In CMC, there is a lack of visual cues which are normally found in face-to-face conversations. By incorporating emoticons, a person is able to clarify and augment their meaning of words or phrases (Rezabeck & Cochenor, 1998). As such, during online therapies, clients are able to use these emoticons to show the psychological therapist what they are feeling, whilst feeling safe in their own environment. Further, a client may be unable to physically say anything and so can use emoticons to show the psychological therapist that they are still part of the conversation. Just as non-vocal communication is an essential part of face-to-face therapy, emoticons could be the online equivalent in helping the therapist to understand the client's processing.

A further facet of netspeak is the use of initials and acronyms, initially developed as a type of shorthand to be used when there was a limit to the number of characters (letters, etc). Research has shown that people do not connect with initials on the same emotional level as they do with other terminology, such as abuse (Kousta, Vinson & Vigliocco, 2009; Parrot, Zeichner & Evces, 2005; Ali & Cimino, 1997). This has allowed people to create new netspeak for emotional terms. This research postulates that by using netspeak within internet therapy, clients will be able to discuss topics in a safe manner whilst receiving emotional support from a psychological therapist. With the reduced emotional impact of netspeak, clients will be able to discuss their experiences with more freedom and confidence.

1.8 Implications for therapy and future research

Acronyms are a standard part of language, with regular use throughout history, and there is no reason to believe that this will not continue. For instance, they have been promoted in psychology as mnemonics in order to help practitioners to remember key aspects or orders to support or treatment, for instance, ASCEND (Anticipation, Summary, Concerns, Explore/Explain, Next steps, Documentation) and CRAIC (Control, Responsibility, Awareness, Impetus, Confidence) – a model for

Irish coaching psychology (Matthys, 2011; O'Donovan, 2009). It could be presumed that the creators of models utilising acronyms as a form of promotion or aides-memoire specifically spend time to formulate a suitable acronym which is both short and related to the model. For instance, from the previous example, CRAIC which in everyday Irish conversation is related to entertainment and enjoyment in life, an area presumably promoted by coaching psychology.

As the popularity of internet therapies increase, so too has the research investigating it. The efficacy of internet therapies have been clearly demonstrated, especially with regards to the use of CBT for depression and anxiety and eating disorders. Future research now needs to focus on the individual's (and therapist's) subjective experience of using therapy on the internet and how it could be improved to provide a better service. Further, as language on the internet is different to spoken language, this will obviously have an impact on communication styles in internet therapies, which has not yet been investigated – either with regards to efficacy or therapeutic relationship.

Chapter 2: Introduction

This chapter will draw on the previous chapter's theoretical overview of internet therapy and language processing in order to provide a practical explanation for investigating the interaction within a therapeutic setting. It will discuss and review theories relating to the use of the internet as a form of therapy. It will consider the online disinhibition effect and hyperpersonal theory before looking at communication skills and the use of netspeak. It will further discuss emotion and mood before describing the rationale and aim for this research.

2.1 Why use the internet for therapy?

According to the Office for National Statistics (ONS), in 2012, 80% of British households had access to the internet. Further, 45% of people used a mobile phone to connect to the internet (ONS, 2011). An American survey recently found that 80% of internet users look online in order to access health related information (Fox, 2011). The internet is widely available, easily accessed and private; it is, therefore, a logical and simple option for people experiencing mental ill health – a very sensitive topic.

Chapter 1 has shown that internet therapy is efficacious, wide-ranging and cost-effective. However, it should still appeal to potential clients and provide a service in addition to that of traditional face-to-face therapies. An example of this could be as a wait-list support or as an alternative for when people are unable to physically attend for therapy. People who experience a mental illness are still stigmatised and may not access support due to fear of embarrassment if friends or family find out or how an employer and colleagues may react.

There are further advantages of internet therapy in that the client can access therapy from their own home. Clients may be unable to leave the house for a number of reasons, for instance financial – not

being able to afford public transport fees or for health reasons like physical disability or obsessive compulsive disorder where leaving the house can involve a complex and time consuming ritual. These potential clients would not be excluded from therapy. For asynchronous therapy, there is no need to factor in arranging and attending a set appointment, nor be subject to unforeseeable preventions, such as inclement weather or traffic problems.

Attending a therapy assessment can cause high levels of anxiety for a client as there is the expectation that, upon a first encounter, the client must divulge deeply personal thoughts and feelings (Cooper, 2005). It has been postulated that people feel uncomfortable with this level of honesty and openness when around others but that this becomes easier when online. This is seen to be due to the relative 'safety' provided by being 'behind' the computer.

2.2 The online disinhibition effect

When communicating on the internet, people can behave and communicate in a different way to how they normally would in face-to-face interactions; they are less restrained and more openly expressive, saying things they normally would not (Joinson, 2001; Suler, 2003; Suler, 2004). This has been referred to as the online disinhibition effect and can be benign – where people share very personal information and emotions as well as behave in a more generous or kind fashion – or toxic – which can involve insulting, criticising and negative behaviours (Suler, 2004). This can lead to a rapid and potentially false relationship developing where people disclose personal information, which they may later regret.

There are six factors which interact in order to create the online disinhibition effect: dissociative anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination and minimisation of authority (Suler, 2004). This means that a person feels anonymous and separate from their actions, can watch interactions without being a part of it, can respond within the time

frame they choose, create an image from another person's response as well as their own identity and exist in a 'world' without rules. These facets combine to give a sense of freedom when online – the possibility to be whomever and wherever a person chooses without fear of social embarrassment, isolation or consequence. The online disinhibition effect can further account for why people may favour internet therapies when they would otherwise not approach a more traditional form of therapy – it is easier to disclose to a 'stranger' and not physically see their reaction than to feel potentially ashamed or embarrassed. However, there is some contention over the assumptions made by the hyperpersonal communication theory as well as other theories which propose different levels of self-disclosure online versus in the 'real' world. Nguyen, Bin & Campbell's (2012) systematic review comparing self-disclosure both on-and off-line found that there were more instances of disclosure online but there was no conclusive evidence that the depth and breadth of the shared information was deeper in comparison to face-to-face interactions.

Whilst this effect can be helpful when using internet therapies, allowing greater levels of self-disclosure (Joinson, 1998; Joinson, 2001; Schouten, Valkenberg & Jochen, 2007; Forgas, 2011), it has also given rise to cyberbullying (Hinduja & Patchin, 2008; Smith, Mahdavi, Carvalho, Fisher, Russell & Tippett, 2008; Adams, 2011) and 'trolling' where people intentionally write insulting and hurtful comments in order to provoke a reaction (Postmes, Spears & Lea, 1998; Crystal, 2006; Merritt, 2012). By effectively being 'invisible' online, concerns over being caught and punished as well as general social disapproval are largely diminished (Wilton & Campbell, 2011).

2.3 The hyperpersonal communication theory

Computer-mediated communication (CMC) is the primary means by which people maintain contact on the internet (Sassenberg & Jonas, 2007). Walther (1996) suggested three types of communication styles: impersonal, which are routine communications, such as work-related emails; interpersonal, where communication becomes more socially-focused, such as the use of Facebook and

hyperpersonal. He further described hyperpersonal relationships as where "users experience commonality and are self-aware, physically separated, and communicating via a limited-cues channel that allows them to selectively still present and edit; to construct and reciprocate representations of their partners and relations without the interference of environmental reality" (Walther, 1996, p33). This allows for a stronger, and potentially more intimate, relationship to develop as people are able to carefully edit their responses until it accurately portrays the person that they are – or present themselves to be. These relationships can develop at a more rapid pace due to people asking and answering much more personal queries than they would during a face-to-face discussion (Hian, Chuan, Trevor & Detenber, 2004). This theory is further supported by the previously discussed online disinhibition effect found during CMC. According to Walther (1996), there are four facets to hyperpersonal communication. These are that, first, an individual creates an idealised image of the person they are 'talking to'; secondly they create an edited version of themselves which matches the perception of the other person. The third facet is only possible due to the a-synchronicity of online conversations – a person is able to continuously edit their responses as opposed to the more spontaneous conversation is face-to-face conversations. Finally, these processes cause perpetual reinforcement of these idealised perceptions which is more intense due to the lack of other, non-verbal cues.

2.4 Using netspeak as a communication tool

The term 'netspeak' appears to have come about as a response to avoid some of the more long-winded descriptions and as a distinct nod to George Orwell's creations of Newspeak and Doublespeak (Crystal, 2006) and can be defined as "writing that very often reads as if it were being spoken – that is, as if the sender were writing talking" (Davis and Brewer, 1997, p3). Netspeak is not solely the use of acronyms, abbreviations and emoticons, although these are fundamental. It is reportedly difficult to define due to the constantly changing nature of the internet but includes non-standard use of punctuation, spelling and grammar and interactions in general (Crystal, 2006).

Attempting to interpret spoken language in the same way as written text and vice versa is a complex operation with a number of potential problems. The most obvious are the lack of proximity and social cues by which people know when to speak and when to respond as well as the time lag between responses (Herring, 1999; Herring, 2010). Whilst this has been shown, above, to facilitate communication, it can be frustrating and confusing, with responses taking time to type or be sent versus when it actually appears on another person's screen. This complication increases exponentially the more people are involved in an online conversation, where responses may not always follow questions and interactions regularly overlap (Wallace, 1999; Crystal, 2006). Not only is the degree of instantaneous communication defined by each person's ability to physically type what they want to say, but this is further impacted by the software and physical internet, both of which are subject to disruptions, breakdowns and lapses. As communication on the internet became more popular and interpersonal a form of shorthand was devised, one benefit of which was to reduce the amount of time it took to type (Crystal, 2001).

The use of initials and acronyms is not a new part of language. Previously, however, it seemed to be more specific to certain communities and organisations, for instance the military, medicine and healthcare services. This has been so normalised that the original terms are not always recognised, for example human immunodeficiency virus, acquired immunodeficiency syndrome and absent without leave are much easier to recognise as HIV, AIDS and AWOL. In some cases, acronyms have become so well established that it is not commonly understood that they are, in fact, acronyms, such as RADAR and LASER whose origins are Radio Detection And Ranging and Light Amplification by Stimulated Emission of Radiation; now seen as words in their own right and so are rarely seen capitalised anymore (Oxford Dictionary of Science, 2010). This appears to have taken the notion of lexicality one step further – the acronym is not only recognised as a word but is also used as such and has, effectively, replaced what it stands for.

Written language also does not contain the emphasis, inflection or emotion which is much easier to convey in speech. Whilst in normal written language, such as in literature, this is accomplished by simply describing the actions – i.e. “she said, sarcastically” – this passive tone does not fit with first person conversation. However, in a similar fashion, people have started to put actions or emotions within “< and >” such as <grins> or <g> and condensing multiple words into acronyms, such as rofl – rolling on the floor, laughing (a more emphatic version of laughing out loud) (Crystal, 2006; Crystal, 2008).

2.5 Measuring emotion and mood

There are many varieties of psychometric testing used in therapeutic services in order to quantify and assess a client’s emotional state. Examples commonly used in the NHS include the PHQ-9 (a measure of depression) (Kroenke, Spitzer & Williams, 2001), GAD-7 (measuring anxiety)(Spitzer, Kroenke, Williams & Löwe, 2006) and the CORE-OM (measuring a general level of psychological distress)(Barkham & Mellor-Clark, 2003). Each of these scales measures specific psychological traits over a set period of time – the PHQ-9 and GAD-7 over a fortnight and the CORE-OM for the preceding week. Although these scales are more common in therapy and used to measure levels of distress, they cannot measure changes over a short time span. As such, they were not considered suitable for this study.

Mood, however, is more transient and can be measured over a brief period. Mood is described as an emotional state, which are less intense and not as specific as emotions (Ziegler, 2010). They are also not always a reaction to a specific event but can seem to be without cause and are subject to fluctuations over relatively short periods of time (Thayer, 1989). However, Thayer (1997) suggests that mood is an overall indicator of an individual’s biological, physiological and psychological wellbeing. It can, therefore, be considered to be a good overall judge of how a person is feeling at a given time.

The UWIST (University of Wales Institute of Science and Technology) Mood Adjective Checklist (UMACL) provides a measurement of mood using 29 self-rated adjectives across different traits – hedonic tone (level of happiness), anger-frustration, tension arousal (level of anxiety) and energetic arousal (Matthews, Jones & Chamberlain, 1990). It has high internal consistency across three scales - energetic arousal, tense arousal and hedonic tone (alpha co-efficients of .88, .86 and .88 respectively). Anger-frustration and overall arousal (from combining all of the traits) was not considered to be a reliable predictor of behaviour and so are not commonly used. A factor analysis verified the validity of the scales and both concurrent and discriminant validity were demonstrated.

The UMACL correlated highly with the 8SQ (a questionnaire measure of mood) as well as autonomic arousal and has demonstrated moderate test-retest reliability (Reilley, Grasha & Shafer, 2002). As opposed to other mood measurements, the UMACL is able to discriminate between high levels of anxiety and high levels of depression providing a useful measure of level of distress in this research, irrespective of energetic and tense arousal. It has further been shown to be particularly sensitive to external stressors.

2.6 Rationale for current study

As has been demonstrated in chapter 1, much research has been carried out in areas of emotion, efficacy of internet and computer mediated therapies as well as linguistic processing, whether a consensus has been made or not. However, there is no research which joins each of these areas together to investigate if the combination has merit. The research conducted into acronym processing maintains that how they are understood is still unclear and there is repeated recommendation for further study in the area (Herbert, Kissler, Junghöfer, Peyk & Rockstroh, 2006; Laszlo & Federmeier, 2007; Slattery et al, 2011). It is commendable to conduct research in order to better understand a process, however it would be useful to place the investigations into context; taking the research forwards from investigating only the how and further incorporating why

acronyms are being used. As such, this research will be unique in combining existing theories in linguistic processing, emotions and computer mediated communication to see how they can be used to support internet-based therapies. This will then better inform both therapeutic practice and research conducted on the process by which internet therapy can be considered effective.

2.7 Aim

This study aims to further the understanding of how and why netspeak and emoticons are used in internet therapies. With the increase in therapies being offered via the internet, it could logically be assumed that there will be occurrences of netspeak being used in text-based therapies (this is already common in peer-supported online message boards). It will contribute to current knowledge by combining areas of cyberpsychology with counselling psychology, two areas which have previously been studied independently of each other. It will further broadly consider how psycholinguistics can be applied to therapeutic practice and if there are any benefits therein. This research will further contribute to guidance on good practice for psychological therapists choosing to offer services via the internet.

The primary aim of the current research is to investigate the role of netspeak when used in internet based therapies. Three experiments will be conducted in order to investigate this; the first will focus on assessing how a short emotionally evocative mini-biography will impact on a participant's mood; the second on whether netspeak can change the impact on mood and finally, on whether netspeak has an impact on the level of psychological therapists' understanding of what a client might write. This study will incorporate a mixed methodology, using both qualitative and quantitative approaches to analyse the data gathered.

2.8 Hypotheses

1 – That using netspeak, acronyms and emoticons will reduce the intensity of negative emotion felt by a person when recounting difficult and distressing topics.

2 – The use of netspeak may cause a barrier to communication in therapy as it is not universally understood: psychological therapists may not be familiar with or understand writing that utilises netspeak.

It will further investigate if there is a relationship between how well netspeak is understood and a therapist's background, for instance the length of their practice, age and familiarity with new technology and communication styles.

Chapter 3: Study 1

3.1 Introduction

This chapter outlines the method, results and discussion of the results from Study 1. It assessed the level of distress that a piece of written work evoked in a participant in order to ensure that it was significant enough to provoke an emotional response. The original plan for this study was to test multiple biographies in order to see which would be the most suitable to use in a later study. However, due to ethical constraints, the first biography written was used as anything more distressing would not have passed an ethics board.

3.2 Method

Study 1 was considered to be a pilot study in that it tested the material for the subsequent experiments. It investigated the level of emotional impact of a fictional vignette describing a brief biography of a person who had experienced significant amounts of emotional distress and difficulty in life.

3.2.1 Participants

10 participants took part in this study. They were recruited from two different areas. At the University of Wolverhampton, participants were recruited from the second year of the Practitioner Doctorate in Counselling Psychology – it was a simple opportunity sample and five people chose to participate during their lunch break and received no credit for doing so. Five further participants were recruited from a local High School. The author had contact with a High School psychology department and so a formal letter was sent to the head teacher (appendix 2) requesting permission to conduct the study with A-Level psychology students. After the study was complete, the author led a discussion on the practical aspects of conducting research, which tied into the module they were

learning. Of the participants, 3 were male and 7 were female, with an age range of 17 – 32 years. There were no specific inclusion or exclusion criteria.

3.2.2 Materials

An information sheet (appendix 3) which clearly explained the experiment as well as the emotional nature of the content used and a consent form (appendix 4) were given to participants at the start of the study. A fictional account of a mini personal biography was created; it was written in the style of a message board vignette (appendix 5). It contained 905 words and fit on to one side of A4 paper. The details of the biography were based on the ideas contained within vignettes used in a previous piece of research (Daynes, 2008); they were short personal histories written on a message board in a forum for people who have experienced mental health issues. A fictional account was chosen instead of an actual account as it allowed more control of the content of the biography. The biography needed to contain specific aspects which were commonly reduced to initials or acronyms on the internet and within communities specific to different mental health issues.

A questionnaire was written with 10 questions which were to assess participant's emotional responses after reading the biography. The biography had to provoke an emotional response however not be too distressing and so was measured with a 5-point Likert scale (appendix 6) in order to gauge a participant's reaction to it. Key questions included "I enjoyed reading it" and "I felt uncomfortable after reading it" in order to gauge how the participant would describe how they felt. Further questions included "I felt sad for the person writing it" and "I don't really care about the person" so that there could be a measure of the participant's level of empathy for the author of the vignette. Empathy is described as the ability of one person to have an understanding of the world of another person and to be sensitive to their experience in a moment-by-moment way (Langdridge, Barker & Cooper, 2010). This can, therefore, be a more subtle measurement of the emotional impact of the vignette.

3.2.3 Procedure

This study was conducted in two parts – 5 participants from a university counselling course completed it first. The second group were 5 participants studying for A-Level psychology at a local school. Participants were given information about the study, and specifically the emotional nature of the material, before being given the biography and the questionnaire. Once completed, Participants read the account and then completed a brief questionnaire asking them to rate their thoughts and emotions about the paragraph. After participants had completed the questionnaire, they were invited to watch a short amusing cartoon in order to counter any potential low mood felt by people after reading the biography. They were further offered a choice of confectionary for the same reason. Participants were debriefed whereby they were told that the account itself was fictional but incorporated aspects from real-life biographies written on an internet support board and invited to ask any questions about the experiment.

3.2.4 Rationale and Data analysis

A 5 point Likert scale was designed to gauge the level of discomfort that the participant felt after reading the biography; ranging from 'strongly disagree' (5) to 'strongly agree' (1). A 4-point, forced choice scale was considered as choosing the neutral item can be considered to be the easy choice and so it is not always known if a person genuinely had no opinion or not. However, it was thought that for this experiment someone genuinely may not have an opinion on the biography or 'true-to-life' accounts and so this would potentially deny an individual's subjective response and as such a 5 point scale was the most appropriate.

3.3 Results

The aim of study 1 was to test the material for subsequent experiments. In this way, it was considered to be a pilot for the rest of the investigation. The descriptive statistics of the questionnaire are shown below.

Table 1. Range, Median & InterQuartile Range of responses after reading the vignette

Question	Range	Median	IQ Range
I understood the paragraph	4	1	3
I enjoyed reading it	3	3	3
I wish I had never read it	3	3	2
I believe the story is true	2	2	0
I felt happy after reading it	4	4.5	2
I felt uncomfortable after reading it	3	3	1
I don't really care about the person	2	4	2
I didn't like reading it	4	3	2
I felt sad for the person writing it	3	2	2
I don't think it was a real account	3	4	0
I felt depressed after reading it	3	4	1
I read lots of 'real-life' stories	4	2.5	2
I rarely read 'real-life' stories	4	4.5	3

Key: Completely agree (1); somewhat agree (2); neither agree nor disagree (3); somewhat disagree (4);completely disagree(5).

As can be seen from the above table, the vignette was understood by most participants and it did seem to provoke an emotional reaction, especially around feeling unhappy or depressed after reading it. The majority of participants also believed it to be a real account of a person's life.

3.4 Discussion

Participants were given a biography to read – there was no explanation as to where it came from or if it was real. Despite it simply being words on a page, there was evidence of participants empathising with the author – 6 people felt sad for the author and 7 people cared for 'her'. This would suggest that the participants were beginning to empathise with the author and could create a relationship. This point is expanded upon in experiment 3.

3.4.1 Reality

From the above table, it can be seen that the majority of participants believe the account to be real – 8 people agreed that the story was true and 9 disagreed with the statement that it was not a real account. It was important that participants believed the account to be real so that they would begin to empathise with the 'author' of the biography. If the participant did not believe it to be written by a real person, then there would be little reason for them to attach a particularly strong emotional reaction to it. It has been shown that people are able to empathise with inanimate and imagined objects, however, people still empathise more with other people (Perraton Mountford, 2006).

3.4.2 Vignette

When the study was initially designed, it involved reading the vignette and assessing if there was a mood change from before reading to after. This was considered to be the best approach as it would directly link to study 2. However, after further consideration of the procedure and what this experiment was aiming to achieve, this no longer seemed appropriate. This study was not testing participants' mood states; it was testing the impact of a piece of text. There was no standardised, published scale so one was devised purely for this experiment. The difficulties in creating this questionnaire or scale included judging what the 'right' questions were to ask in order to elicit a response.

Writing the vignette was a particularly difficult aspect of the experiment to both plan and execute as it needed to provoke a reaction but not cause too much distress. This presented a complicated dichotomy in which to write the vignette. A number of vignettes were written with the intent to test three or four in order to judge which would provide the most suitable for the study. However, the study was given ethical approval for the first vignette on the condition that anything with a stronger level of distressing material would not be acceptable as it would be unethical. Alternative vignettes could have been written and tested in order to see if there were different amounts of emotional impact and specifically to compare to the vignette that was actually used.

3.4.3 Emotion and impact of the vignette

The vignette was written with the specific purpose of eliciting an emotional reaction from participants as this would obviously have an impact on the second study in this research. In order to do this, participants were asked to rate their emotions after reading it. There were three statements investigating positive emotion and three statements relating to negative emotions. The remaining statements investigated participants' understanding of the biography and any levels of regret pertaining to reading it. It was obviously important to gauge the level that participants understood the biography; if participants did not know what they were reading then could they feel any emotional reaction to either the biography or the apparent author.

3.4.4 Limitations to this study

This study could have been altered by changing the amount of data collected. For instance, collecting personal data on the participant responses – this would have provided information on whether, for instance, males or females found the biography more distressing. As there was a moderately wide age range, this would further have been interesting to investigate, particularly in light of research stating that younger people are more likely to turn to the internet in the first instance to look up health issues. Young people are also the highest users of the internet. However,

as accessing the internet is becoming easier, through the use of wireless technology, the type of person using the internet is changing.

It might have been useful to recruit a larger number of participants which is usually expected to provide a wider range of responses and, with that, a clearer picture of people's reactions to the biography. Whilst this may often be the case, all that was necessary here was to demonstrate understanding and emotional engagement. As such, a smaller sample size could suffice. Further, testing only one biography could have limited the study. However, this was limited by the ethical requirements to complete the study. As has been stated previously, a major limitation to this study was balancing the ethical requirements not to distress participants with the need to provoke an emotional reaction.

This study tested the suitability of the vignette so that it could be used in a second study. The vignette appears to have been understood and had some emotional influence on participants. This would suggest that the vignette would be suitable for the study 2. However, it needs to be recognised that even though the material had some emotional influence, there are different processes involved between the two studies. Study 1 is investigating a reaction to reading the material only. Study 2, however, involves reading the material and then re-writing it.

Chapter 4: Study 2

4.1 Introduction

This chapter outlines the method, results and discussion of the results from Study 2. This study investigates the hypothesis that using netspeak, acronyms and emoticons will reduce the level of emotion felt by a person when recounting difficult and distressing topics. There are a variety of therapeutic approaches which focus on the use of writing: for instance, narrative therapy, bibliotherapy, therapeutic or expressive writing, creative therapies and journaling (Wright, 2002). These are all well established and efficacious approaches to the treatment of certain emotional disorders, for instance, in low mood and depression, where cognitive behavioural therapy recommends writing a journal to track thought and emotions in order to help identify dysfunctional associations. Further, it is a helpful aspect of trauma-focused therapy as it allows the client to continuously re-live their trauma in a safe environment, which is the prescribed protocol. This allows the client to re-process the trauma without the high levels of emotion (van Emmerik, Kamphuis & Emmelkamp, 2008). It was expected that there would be less of a negative impact on mood for the group that wrote using only netspeak than the group that used full and correct English.

4.2 Method

Study 2 investigated whether the use of netspeak, acronyms and emoticons makes it easier/less emotive for participants to write about distressing topics. Each study investigated participants' emotional states before and after the intervention in order to see if there was a difference. The level of emotion evoked was assessed using the UWIST (University of Wales Institute of Science and Technology) Mood Adjective Checklist (UMACL). Mood was defined as an "emotion-like experience lasting for at least several minutes" (Matthews, Jones & Chamberlain, 1990, p17). The UMACL is a self-report questionnaire asking participants to rate 29 adjectives according to whether it accurately describes their mood at the time of reading over a 4 point scale (appendix 9). The 29 adjectives are

grouped into different aspects of mood; hedonic tone, anger frustration, tense arousal and energetic arousal. The adjectives used to describe hedonic tone include cheerful, happy, contented, sorry, depressed, dissatisfied, sad and satisfied. The level of tension arousal is described with the adjectives composed, anxious, jittery, calm, tense, passive and relaxed. Energetic arousal uses adjectives such as vigorous, sluggish, restful, active, energetic, tired and alert. Higher scores indicate a high happiness rating for hedonic tone, a high anxiety rating for tense arousal and a high energy rating for energetic arousal.

4.2.1 Study Design

This study was an independent measures design and required a similar number of participants in each of the conditions. It was an opportunistic sample of students and staff at a high school. The independent variable was the condition to which participants were assigned – netspeak, complete English or in their own words. The dependent variables were the change in scores from the UMACL in hedonic tone, tension arousal, anger frustration and energetic arousal.

4.2.2 Participants

There were 53 participants who completed the study, who were a mixture of A-Level students and support staff from a local high school. Originally 62 people took part with 3 participants choosing not to continue in the study and 6 were excluded as they did not complete the second UMACL. The author had contact with a High School psychology department and so a formal letter was sent to the head teacher (appendix 2) requesting permission to conduct the study with A-Level psychology students. After the study was complete, that author led a discussion on the practical aspects of conducting research, which tied into the module they were learning. Of the participants, 18 were male and 35 were female, with an age range of 17 – 32 years. There were no specific inclusion or exclusion criteria.

4.2.3 Materials

An information sheet (appendix 7), which clearly explained the study as well as the emotional nature of the content used, and a consent form (appendix 8) were given to participants at the start of the study. As was a vignette detailing a personal account of domestic violence, abuse and self-harm (the same biography that was tested in study 1) and the UMACL. Along with this were instructions on how to complete the different conditions from the study (appendix 10). These were stapled together in the following order: information sheet, consent form, biography, UMACL (pre-), instructions for the condition, blank lined paper, UMACL (post-). The conditions were:

Group A – participants were asked to re-write what they remembered from the paragraph using only netspeak, acronyms and emoticons. With this instruction, a number of examples were given including generic terms, such as to/2 and for/4 as well as subject specific terms such as CSA/childhood sexual abuse and SH/self-harm.

Group B – participants were asked to re-write what they remembered from the paragraph using only full and correct English – specifically asked not to include any common acronyms.

Group C – participants were asked to re-write what they remembered from the paragraph in their own words. No further instructions were given.

After the study was concluded and the materials collected, participants watched a funny video clip for a few minutes. This was in order to counter any potential low mood as a result of completing the study. The clip chosen was from a series of shorts called “Simon’s Cat” and the specific clip was titled “let me in” (2008).

4.2.4 Procedure

A letter was sent to the headteacher of a local high school and sixth-form requesting permission to conduct the study with students studying A-Level psychology (see appendix 2). The school was

chosen due to the author's personal links with staff at the school and particularly the psychology department, however none of the participants were personally known to the author.

A-level students were chosen as their younger age range would facilitate their understanding of netspeak and emoticons required by the conditions. They have further been shown to be the biggest users of the internet and text messaging (ONS, 2011) and are regularly targeted for internet therapies (see, for example, xenzone.com, childline.org.uk, kooth.com) as in this age range there are high levels of mental illness but fewer numbers accessing counselling. They were invited to take part in this study by their psychology teachers and were clearly informed of the emotional content of the material used at that stage. This was again reiterated before the materials were handed out. The study was conducted in the school drama centre in one mass testing session, with each participant sitting at their own table – it was important that participants did not sit close together otherwise there was a chance that they would find out the other conditions. The materials from the study were randomly distributed and participants given 45 minutes to read and complete it.

Participants were instructed to complete each task in the order of the pack they were handed and to not read ahead. If any participants had questions, they were informed to ask them as they were encountered rather than wait until the end. After reading the biography, participants completed the UMACL in order to give a base-line score before the different conditions. Participants re-wrote the biography in first person according to the condition they were in. In the Netspeak condition, the Netspeak was defined mostly by the examples given, which included common, everyday examples as well as specific emotional examples which would likely be useful in the study. Netspeak is more than just the use of acronyms and abbreviations, but this was not the purpose of the study and so further, detailed, guidance was not given. None of the participants asked questions in relation to the Netspeak condition suggesting that they understood the instructions.

They then completed the UMACL a second time in order to see if there was a difference in their scores from their base-line; this would indicate there was an impact on participants' mood states. During the study, a number of questions were asked by different participants who wanted to confirm that they had to complete the UMACL a second time and that it was not added again by mistake. No advice was given as to whether participants should refer back to the biography when re-writing or if it should be done completely from memory.

Participants were informed that they were free to withdraw at any time during the study without giving a reason. Participants were debriefed after they had completed the study and again the guidelines highlighted above were restated. This gave the participant the opportunity to raise any issues that they may have encountered whilst completing the research. For studies 1 and 2, as part of this debrief, and in order to alleviate any potential low mood resulting from reading the material, participants watched a topical comedic clip. The clip chosen was from a series of shorts called "Simon's Cat" and the specific clip was titled "let me in" (2008). Participants were further given a choice of confectionary as this has been shown to have a temporary effect on raising negative-induced moods (Macht & Mueller, 2007).

4.2.5 Rationale and Data analysis

Participants were administered the UMACL after reading the paragraph and then again after they have re-written the account. The data was analysed using four 3x2 Analyses of Variance (ANOVA). This model is used to define the relationship between multiple independent variables and the dependant variable – so to investigate the relationship between different writing conditions and the time at which the UMACL was completed. A repeated measures design is used to analyse a response variable which is measured at different times from the same participant.

4.3 Results

Study 2 tested the hypothesis that using netspeak, acronyms and emoticons will reduce the level of emotion felt by a person when recounting difficult and distressing topics. Data was analysed using four 3x2 ANOVAs in order to quantify the relationship between the independent variables (the 3 conditions) and the dependant variable (level of distress). It is a way to examine the differences within each participant – to see if there was a difference in the times that mood was assessed, before and after the intervention.

The UMACL measures a number of items: hedonic tone, anger frustration, tense arousal and energetic arousal. It can also provide a measure of overall mood; however, this is not considered to be a particularly useful measure due to the varying different aspects that it measures.

4.3.1 Hedonic Tone

Hedonic tone is a measurement of a person's level of happiness and the ability they have to tolerate changes to it. The adjectives used to describe hedonic tone include cheerful, happy, contented, sorry, depressed, dissatisfied, sad and satisfied. Higher scores for hedonic tone indicate a high level of happiness.

Table 2. Descriptive statistics for hedonic tone scores pre- and post-intervention

	Condition	Mean	Std. Dev.	N
Pre-	Netspeak	17.75	3.78	20
	English	17.88	5.43	17
	Own Words	17.56	4.99	16
Post-	Netspeak	18.7	4.35	20
	English	17.59	5.21	17
	Own Words	16.37	3.83	16

There was no significant effect for time (f (1, 50) = 0.080; p=0.778), no effect of condition (f (2, 50) = 0.435, p=0.065) and no interaction effect (f (2, 50) = 1.013, p = 0.37).

4.3.2 Tension Arousal

Tension arousal is a measurement of a person's level of stress and anxiety. The level of tense arousal is described with the adjectives composed, anxious, jittery, calm, tense, passive and relaxed. High scores of tense arousal suggest a high level of anxiety.

Table 3. Descriptive statistics for tension arousal scores pre-and post-intervention

	Condition	Mean	Std. Dev.	N
Pre-	Netspeak	18.6	4.06	20
	English	18.76	4.53	17
	Own Words	19.19	3.54	16
Post-	Netspeak	18.35	3.83	20
	English	19.65	4.77	17
	Own Words	20.5	4.52	16

There was no significant effect for time (f (1, 50) = 1.494; p=0.227), no effect of condition (f (2, 50) = 0.597, p=0.554) and no interaction effect (f (2, 50) = 0.809, p = 0.451).

4.3.3 Energetic arousal

Energetic arousal is a measurement of a person's levels of energy or tiredness. Energetic arousal uses adjectives such as vigorous, sluggish, restful, active, energetic, tired and alert. High scores of energetic arousal indicate a high level of energy.

Table 4. Descriptive statistics for energetic arousal scores pre-and post-intervention

	Condition	Mean	Std. Dev.	N
Pre-	Netspeak	17.75	3.26	20
	English	17.94	2.66	17
	Own Words	17.69	2.27	16
Post-	Netspeak	19.65	3.48	20
	English	18.59	3.39	17
	Own Words	18.25	3.3	16

There was a significant effect of time ($f(1, 50) = 4.022$, $p<0.05$). Participants had more energy after completing the study than when they started it. There was no significant effect of condition ($f(2, 50) = 0.395$, $p = 0.676$) or interaction ($f(2, 50) = 0.745$, $p = 0.48$).

4.4 Discussion

It was hypothesised that there would be less of a negative impact on mood for the group that wrote using only netspeak than the group that used full and correct English. However, this study found that there was no difference in the mood states for participants in any of the conditions. As such, this would suggest that the use of netspeak had no impact on the participants' levels of distress when writing about an emotional experience. At first glance, this seems to be at odds with current literature suggesting that netspeak (acronyms and abbreviations) are processed differently to emotive words (Koban et al, 2010). However, this would rely on a person understanding what a word means.

The scenario described in the biography is likely to be very unfamiliar to the participants. The participants in this study were not invested in the emotional text of depression, self-harm, suicide etc and so the actual words may not evoke any major emotional response. As such, there would be little difference then, if the words were reduced to acronyms or abbreviations. This is clearly shown

by the low scores indicated in the tension arousal subscale. Without this, therefore, there is no difference between the conditions.

Further, there was little emotional involvement for the participants in this study. Although the first study demonstrated that there was some emotional influence in the vignette, the story it recounted was not their own. They were not describing their own experiences and, it is unlikely that participants would have been able to identify with the author. In fact, the participants who may have been able to find shared some shared experiences with the author may have found the task too uncomfortable which could account for the 3 participants who chose not to continue in the study.

Current literature suggests that people process netspeak differently to standard languages, however this has predominantly focused on the processes involved in reading. To date, there has been no research on how writing in netspeak is processed and if there are any subsequent differences. As such, it is difficult to interpret the results of this study in light of any proposed theories. If the use of netspeak increases then this would be an area to investigate, especially from an emotional standpoint.

The key component to any type of written therapy is that the client is experiencing some level of distress and is seeking help. The participants in this study did not fall into this category and, whilst it is impossible to outright state that none of them were experiencing some level of emotional difficulties, nor that they had sought out therapy, they had not done for the purposes of this study.
It was interesting to note that there was a significant result for energetic arousal. The participants felt that they had more energy after completing the study than before. This is the opposite result to what could have been expected – that participants would feel more tired at the end of the study. This could have been influenced by the timing of the study – it was conducted in the first lesson,

which, for most of the participants was actually a free period. After this, they had a full school day. As such, they may have felt more alert as they were about to begin their studies for the day.

A number of participants asked questions at the start of, and during, the study. This was usually to clarify their understanding. This supports literature which has demonstrated that having human involvement increases the efficacy of internet therapies as it provides the space to dispel uncertainties (Andersson, 2009; Titov et al, 2009; Almlöv et al, 2009). This would further provide evidence that Lampe's (2011) postulations that psychological therapists will not be required may not be true – people, and clients, still benefit from being able to communicate with a 'real' person.

4.4.1 Improvements to this study

There are a number of ways to improve this study. The creation and use of material which is more meaningful for the participants, particularly if the scenario was more familiar to their own lives would likely have a stronger emotional impact. Alternatively, participants could be asked to write about a difficult or unhappy experience from their own lives in each of the conditions stated. However there would be difficulty in standardising this as well as ethical issues over requiring participants to describe an unpleasant experience which could cause lasting distress.

A further improvement could be to change the population studied, instead of the material. The study would have benefitted from using a sample of participants who were experiencing a level of psychological distress and so seeking out therapy. This would allow participants to write in either standard English or netspeak and then to gauge the level of emotion before and after. This could better illustrate if there was a difference in level of emotion when writing in netspeak. However, this would be unethical both for research purposes and therapeutically. It would be useful to conduct this study over a longer period of time and in a therapeutic setting. It could be incorporated into a participant's therapy, as writing homework or journaling is a common aspect and is facilitative

to traditional therapy sessions. In this way, participants would be fully engaged with their own material and this could be safely contained by their psychological therapist.

Chapter 5: Study 3

5.1 Introduction

This chapter outlines the method, results and discussion of the results from Study 3. This study tests the hypothesis that the use of netspeak will cause a barrier to communication in therapy as it is not universally understood. One of the benefits of conducting therapy via the internet is that whatever the client writes instantly becomes permanent, unlike in traditional therapy which is subject to misunderstanding or not hearing, as well as a reliance on each party's memory. All psychological therapists have their own style and ways of working in therapy, even when following the same model. If they conducted therapy via the internet then this would also be the case – from what they offered, to how they then worked with what the client wrote.

In addition to this, this study also investigated if there was a relationship between how well netspeak was understood and a therapist's background, for instance the length of their practice, age and familiarity with new technology and communication styles. It was expected that the level of understanding of netspeak will vary amongst practitioners and that this, in turn, will create a barrier to communication. This included questions on how often they used the internet and mobile phones, length of practice and age. These factors would have a strong likelihood on influencing how familiar a participant is with netspeak and emoticons and therefore how much they would understand. It is expected that age will be the biggest predictor of understanding as more young people access the internet and are more inclined to use netspeak. Another likely predictor of understanding is how often the therapist uses the internet as high levels of internet use would suggest more familiarity of netspeak.

5.2 Method

Study 3 investigated if psychological therapists actually understand what is written when presented with a paragraph written using netspeak. This was done using a mixed methods data analysis, incorporating a multiple regression, correlation and qualitative comparison.

5.2.1 Study Design

An independent measures design in which the independent variables were the background details of the participants – age range, the amount of time they spent on the internet and a computer per day and how many years they had been practising therapy. The dependent variable was the level of understanding of the vignette.

5.2.2 Participants

22 participants completed this study. 2 were male, 20 female, with an age range from 20 – 60 years old. In order to take part in this study, participants must have had experience of working therapeutically – this could be as a trainee, qualified professional or retiree. Participants were not required to have any experience of internet based therapy or any other form of non-traditional therapy. Participants were recruited electronically – via individual email, group email or e-newsletters. Completing the study electronically could have potentially introduced a participant bias in that it might have attracted people who were more familiar with netspeak. However, the vast majority of the email addresses to which the study invitation were sent was to work or university addresses, rather than personal. This does not preclude that participants would be more familiar with netspeak but, along with a neutral title relating to simply communication, it could lessen any potential bias.

5.2.3 Materials

In condition A of study 2, participants had to complete a re-write of a biography using Netspeak. From these responses a 'new' biography was created – it was important to use real accounts instead

of a further fictional one as this would add a level of authenticity: without using netspeak as an everyday means of communication, it is very difficult to judge how it should be written and there was a temptation to simply substitute key terms for netspeak which would not read right - in the same way that translating text to another language is not done word-by-word but as a whole.

Three responses were chosen to create a netspeak version of the biography as each one did not contain enough of the original detail on its own. Each piece was written in a very similar style, using the same netspeak and abbreviations beyond the examples given. In order to maintain consistency, some generic terms were altered, for instance to follow the first response which used 'n' in place of 'and' and 'e' in place of 'the'. The biography was described as a message board vignette in order to explain the style in which it was written. The new netspeak vignette was composed of 25 statements (appendix 15).

A very brief email which clearly explained the instructions for completing the study as well as the order to open the attached documents and then which ones to return (see appendix 12). In order to be as clear and simple as possible, each document was numbered 1 – 4 in the order of reading. An information sheet (appendix 13), which clearly explained the study as well as the emotional nature of the content used, and a consent form (appendix 14) were given to participants at the start of the study.

A questionnaire was created on which participants were asked to re-write the vignette (see appendix 16) as well as background and practice history of the therapist. The questionnaire asked no information which could be used to identify the participant.

5.2.4 Procedure

The study was advertised via group email to four universities which offered higher degrees in counselling or clinical psychology; through a national e-newsletter from the BPS and 2 regional e-

newsletters for members of the Division of Counselling Psychology; through an NHS trust-wide group email; group emails to private therapy providers with whom I or my colleagues had links and to individual personal contacts. I did not discuss the hypotheses or the focus on language and levels of distress with any personal contacts as I intended to invite them to take part from the outset. Discussing the subject of the studies would have caused potential bias on how participants completed the study and the impact on what they wrote: it was only ever described as a study on communication in internet based therapy.

Participants were asked to read the netspeak paragraph and then an open questionnaire asking them to write a short piece explaining what they believe the paragraph said. They were asked to complete a questionnaire about their background and level of experience (appendix 16) before returning both. No information was given as to whether participants should re-write the vignette from memory or with the text in front of them. This was purposely left for the participant to decide for themselves how best to proceed with the study. As such, dictating the procedure would have had a direct impact on the psychological therapist's choice of what to 'do' with the vignette, whether in their own practice they would prefer to work through it line-by-line or respond to it as a whole. Equally, this would alter whether they wrote their answer from directly looking at the vignette, or if it was written after reading it and nothing further.

5.2.5 Rationale and Data analysis

The analysis of data from this study will incorporate both qualitative and quantitative approaches. This mixed-method design, whilst not being common, is the most appropriate to understanding participant responses. First, have participants understood the netspeak vignette, and, if so, to what extent? This requires a subjective interpretation of what has been written. To do this quantitatively would be possible, by simply counting up the number correct 'translations' from the netspeak into

correct English. However, this would not account for how well the vignette, or specific sentiments, had been understood.

A multiple regression was used to compare the relationships between level of understanding and participants' background information. Regressions are used to test the likelihood of certain predictors on the outcome.

Qualitative psychology is concerned with the broader understanding of experiences of people. It is generally understood that qualitative research methods are used when a deeper level of information is required (Creswell, 2007; Denzin & Lincoln, 2005). This does, then, create the question – what is meant by 'a deeper level' and what is it deeper *than*? Langdridge (2003) begins to answer these issues by saying that qualitative methods aim to investigate the motivation and reasoning behind people's responses to questions and situations as opposed to just the response itself. By being able to adapt questions specifically to each participant, researchers can investigate further into participant responses in order to more fully understand experiences as much as is possible (Langdridge, 2003; Ritchie & Lewis, 2003; McLeod, 2003).

There was a difficulty in choosing the most suitable way of analysing how well participants had understood the vignette. There are a number of qualitative methods for interpreting this style of writing, for instance discourse analysis, thematic analysis or content analysis. This study does not require in-depth analysis of, for instance, tone, structure and semantics as it is not simply the response being analysed – it is being investigated to see how closely it matches the original netspeak vignette. This is done on a sentence by sentence basis and with particular attention paid to how acronyms are interpreted, or not, on an individual basis. The qualitative analysis in this study was based on a thematic analysis which has been described as is "poorly demarcated" and "rarely acknowledged" in qualitative analysis (Braun & Clarke, 2006, p77). Boyatzis (1998) stated that there

are three ways of creating codes for thematic analysis of qualitative data. These are: prior research driven – using codes and themes from previous studies in a similar area; theory driven – creating codes and themes based on published literature and data driven – deriving codes and themes from the research data collected for the study. This research did not use coding but, instead, looked at the themes within the data – comparing the themes in the vignette to the themes suggested by the participants' summaries.

Study 3 utilised this qualitative analysis in order to gauge the level of information understood. This was done on a sentence-by-sentence basis to see if the information matched the original text; by counting the number of correct key terms. However, this was not a translation exercise, and participants were not likely to re-write the vignette following the same sentence-by-sentence structure. As such, the analysis also looked at overall themes – for instance, did the participant refer to a suicide attempt at any point in their summary as this abbreviation – sui – was used twice. It also counted the number of instances that netspeak was used versus the number of instances that is it 'translated' into formal English in order to identify the level of understanding. A multiple regression was conducted in order to investigate if there were any predictors to the level of understanding of the netspeak paragraph from a psychological therapist's background information, such as age and number of years' experience.

The qualitative analysis was completed solely by the researcher. In this style of analysis, it would be usual to ask a second researcher to conduct the analysis using the same instructions (or context) in order to see if they come to the same interpretation. However, the lack of availability of a second researcher meant that this was not possible in this study.

5.2.6 Ethical considerations

The study was granted ethical approval by a University Ethics Panel and conducted according to the British Psychological Society Code of Conduct and Ethical Principles and Guidelines (2009) & the Health Professions Council Standards of Proficiency (2010).

The nature and materials of the study were clearly explained both at the recruitment stage and at the commencement of the studies. This was to ensure that participants were fully informed and aware that the study explored the sensitive topics of domestic violence, self-harm and abuse.
The information collected contained no identifiable information thus preserving anonymity and confidentiality. In study 3, participants primarily returned data by email which presented the potential concern that their responses could be identified. To counter this, participants were given the option of returning their responses by post. Further, when the email containing the consent form and participant's completed questionnaire, these were immediately downloaded into separate computer folders and the email deleted.

When recruiting for participants it was very clearly stated that the study will include the reading and writing of potentially distressing items. It further clearly stated that the study required participants to read an article relating to domestic violence, abuse and self-harm. It was not anticipated that participants from study 3 would require additional support due to the nature of their profession and that, as part of their practice, they will be in regular contact with their own therapist.

5.3 Results

Study 3 investigated how well a psychological therapist understood communication when written in netspeak. There was a further interest in seeing if there was a relationship between how well netspeak is understood and a therapist's background, for instance the length of their practice, age and familiarity with new technology and communication styles.

The questionnaire was in three parts – the first asked participant's background information, the second required participants to re-write what they believed the vignette said and the third asked participants to rate how they found the experience. 4 participants did not complete the third part of the questionnaire.

Regressions are used to test the likelihood of certain predictors on the outcome. It is expected that the different aspects of a participant's background will have an impact on the level of understanding of the vignette. In order to test this, a linear regression model was considered the most appropriate analysis as there are multiple predictors to one outcome.

Data was entered into SPSS v.19 using a hierarchical input as previous research has suggested the important of the variables as predictors. The most likely predictor of understanding the vignette was age, as more young people access the internet and so are more inclined to use netspeak (Crystal, 2008). Another likely predictor of understanding is how often the psychological therapist uses the internet as high levels of internet use would suggest more familiarity of netspeak and so was entered into the model second. The remaining predictors were if a psychological therapist offered internet therapeutic services, computer usage and how many years they had been practising. Whilst it is expected that these will have an effect on the outcome, there is no suggestion of which is the most important from any research as yet.

There is current debate as to an adequate number of cases: variable ratio required in order to provide sufficient power for predictors, with the overall suggestion that the more participants are involved, the better (Osborne & Costello, 2004). The minimum recommended ratio when using a multiple regression is 5:1 (5 participants for each variable investigated), however there does not appear to be a consensus (with 10:1, 15:1 and 30:1 all being cited) that works for all studies. This becomes more of a problem with particularly small sample sizes and their subsequent lack of

generalisability. This study had 4 variables (participant age, number of hours spent on the computer, number of hours spent on the internet and length of time practising therapy). By the minimum case: variable ratio above, this study needed 20 participants. As there were 22 participants, then this study meets the minimum ratio required. However, this is still a very small sample size and so would be limited in generalisability.

5.3.1 Participants' background

Participants were asked to provide their background information on the questionnaire that they returned. This asked for information on participant's age range, the amount of time they spent on the internet or a computer per day and how many years they had been practising therapy.

The majority of participants were in the 20 – 30 year old age range (n = 8), followed by 41 – 50 year old (n = 7), 31 – 40 year old (n = 6) and only 1 participant aged 51 – 60 years old. Separate questions were asked about time spent on the internet and time spent on a computer each day in order to see if there was a different between these variables. Previously, spending time on the internet meant having to be at a computer, whereas with the advent of smartphones and tablets, this is no longer the case. It is now easier, quicker and much more convenient to access the internet and this could have an impact on a participant's understanding of netspeak. The majority of participants spend 2-3 hours a day on a computer (n = 11) and then 4 – 5 hours (n = 7). Fewer participants only used a computer once a day (n = 2) and only 1 participant spent 6 – 7 hours or 8 or more hours on a computer. This data differed slightly from the amount of time participants used the internet each day, with most people accessing it 2 -3 hours (n = 12), 6 participants used the internet only once a day and 4 participants spent 4 – 5 hours online. There was a wide range of participants' therapeutic practice: 1 participant each had 19 – 21 and 7 – 8 years of practice and 2 participants had been practicing for 9 – 11 years. The majority of participants had been practicing for less time and most of these for 3 – 4 years (n = 9), followed by 1 – 2 years (n = 5) and 5 – 6 years (n = 4).

The majority of participants stated that they had never offered therapeutic services over the internet (17), followed by occasionally (3) and finally sometimes (2). All participants had a mobile phone and 77% of those had a smartphone. All participants stated that they used their phone for making calls and text messages except for one participant who stated that they only had the phone for emergencies.

5.3.2 Level of understanding

There were 25 statements in the netspeak vignette. Participants were matched on how closely what they wrote matched the information in the vignette. This was done in two ways – first, the participant had to understand the general meaning of the statement and second, they had to interpret any netspeak items correctly. This was interpreted, in the first instance, on a sentence-by-sentence basis to see if the summary matched the original text; in essence, by seeing if the participant had correctly identified the netspeak terms. For instance, the opening statement was "It started when I was 7 my uncl use 2 sa me." Participants needed to correctly identify that the author was sexually abused by her uncle. This could be referred to at any point in the participant's summary and not necessarily in the same linear order as the original vignette. As such, the analysis also looked at whether the participant correctly understood what the vignette had stated – this was done as an overall theme, such as whether the participant referred to self harm at any point ('sh' in the vignette). Participant understanding was scored as either 0 (no mention of theme), 0.5 (mentioned theme or correct understanding of netspeak) or 1 (understood theme and netspeak) (Appendix 18).

The range of scores achieved from participants was 3.5 – 24.5 (mean = 12.61; SD = 5.68). These results have been broken down into participant background data in the tables overleaf:

Table 5. Descriptive statistics for understanding vignette by years of therapist practice

years of practice	N	mean	sd
1-2	5	10.5	4.22
3-4	9	13.11	6.98
5-6	4	10.88	3.33
7-8	1	24.5	--
9-11	2	11.25	1.06
19-21	1	15.00	--

Table 6. Descriptive statistics for understanding vignette by participant age

age	N	mean	sd
20 – 30	8	12	5.43
31 – 40	6	10.92	4.4
41 – 50	7	15.07	7.15
51 - 60	1	10.5	--

Table 7. Descriptive statistics for understanding vignette by computer use per day

hours per day	N	mean	sd
Once	2	22.25	3.18
2-3 hours	11	11.36	6.07
4-5 hours	7	11.86	3.9
6-7 hours	1	15	--
8+ hours	1	10	--

Table 8. Descriptive statistics for understanding vignette by internet use per day

hours per day	N	mean	sd
Once	6	15.92	7.78
2-3 hours	12	12.04	4.48
4-5 hours	4	9.38	3.73

5.3.3 Multiple regression

A hierarchical multiple regression was used to analyse the data in order see if different factors predicted the level of understanding of the netspeak vignette. This allowed the variables to be inputted in a specific order into the test. The order of the variables was decided based on research which suggested the likelihood of a variable being a good predictor. Likely predictors of understanding were a participant's age as more young people access the internet and so are more inclined to use netspeak as well as how often the psychological therapist uses the internet as high levels of internet use would suggest more familiarity of netspeak. A third predictor of understanding was whether the psychological therapist had offered internet therapy as, in doing so, they may have come across netspeak in their work. Further variables included number of hours spent on a computer as, again, this could suggest familiarity with netspeak and the final variable was how long a psychological therapist had been offering therapy.

Table 9. Multiple regression of predictors of participant's understanding

	B	SE B	β	t	p
Step 1					
constant	10.68	2.96		3.6	0.002
age range	0.94	1.32	0.16	0.72	0.483
Step 2					
constant	19.37	5.67		3.41	0.003
age range	-0.12	1.39	-0.02	-0.86	0.933
internet usage per day (hrs)	-3.41	1.94	-0.41	-1.76	0.094
Step 3					
constant	24.04	13.28		1.81	0.087
age range	-0.24	1.46	-0.04	-0.16	0.87
internet usage per day (hrs)	-3.53	2	-0.43	-1.76	0.095
offered internet therapy	-0.89	2.28	-0.09	-0.39	0.7
Step 4					
constant	22.96	13.6		1.7	0.108
age range	-0.09	1.46	-0.01	-0.06	0.955
internet usage per day (hrs)	-3.11	2.12	-0.38	-1.47	0.161
offered internet therapy	-0.38	2.42	-0.04	-0.16	0.877
computer usage per day (hrs)	-1	1.47	-0.16	-0.69	0.502
Step 5					
constant	24.38	14.1		1.73	0.103
age range	-0.63	1.84	-0.1	-0.35	0.735
internet usage per day (hrs)	-3.06	2.17	-0.37	-1.41	0.178
offered internet therapy	-0.68	2.54	-0.07	-0.27	0.793
computer usage per day (hrs)	-1.14	1.52	-0.18	-0.75	0.465
years of practice	0.52	0.97	0.16	0.54	0.599

No significant models accounted for the participant's level of understanding the netspeak vignette. There was no significant model for age (r^2_{adj} = -0.024, $F(1,21) = 0.51$, $p = 0.48$); no significant model for internet use (r^2_{adj} = -0.074, $F(1,20) = 1.84$, $p = 0.19$); no significant model for offering internet therapy (r^2_{adj} = 0.30, $F(1,21) = 1.22$, $p = 0.33$); no significant model for computer use (r^2_{adj} = 0.001, $F(1,21) = 1.01$, $p = 0.43$) and no significant model for years of practice (r^2_{adj} = 0.45, $F(1,21)$ = 0.83, $p = 0.55$). This means that none of the investigated factors predicted the level of understanding of the netspeak vignette.

5.4 Discussion

The purpose of this study was to see if the use of netspeak in internet therapy presented any difficulties in psychological therapists' understanding of what was written. And, if so, to what extent this was an issue. In addition, this study also investigated if there were any factors from a therapist's background which would influence their understanding of the netspeak vignette.

On average, participants understood half of the netspeak vignette. There was good recognition of the overall content, for instance that the author described sexual abuse, an eating disorder, self-harm, suicide attempt and domestic violence.

The results above have shown that there were no significant predictors of a participant's level of understanding of the netspeak vignette. This was different to what was expected to be found, especially as younger people are more familiar with, and regularly use, netspeak and so it was thought that they would have a better understanding of the netspeak vignette.

5.4.1 Practicality

This study was carried out by correspondence – the researcher and the participants never met as part of the study. 3 participants chose to complete the research and return it via the postal system: 2 were handwritten, 1 was typed and printed. The remaining 19 participants returned their responses via email. There were some compatibility issues – all of the accompanying documents were completed using Microsoft Word 2010 edition which meant that some participants were unable to open them. As part of the formatting, the tick boxes were embedded so that clicking on them would automatically insert a cross in the relevant box and this was clearly stated on the questionnaire and consent form when informing participants of how to proceed with the study. For some participants, either this formatting changed with the software they were using or they were unfamiliar with the practice. As such, participants devised a range of ways to demonstrate their answers; highlighting

text in bold, marking 'x' at the side of, or in place of, the answer box, re-writing the answer at the side or writing 'yes' next to the appropriate response. Interestingly for the subject of this research, one participant over-wrote the tick-boxes with a happy smiley face.

There were no instructions given as to how to complete the re-writing task, either to rely on memory, to check back or have both the vignette and questionnaire open at the same time. This was to create as natural a process as possible by allowing participants to complete the study in the same manner they would work online with them. However, one participant explicitly commented that they re-wrote the vignette after reading it once from memory.

Internet research is a relatively new way of working, which seems to be shrouded in doubt and misunderstanding. This could, therefore, put potential participants off taking part, especially if they are not very familiar with computers or software packages. Whilst this was a novel way of conducting research for many participants, it did not seem to prevent participants from responding.
4 participants did not complete the final part of the study – 4 questions asking participants to rate how they found the task of re-writing the vignette. It would seem as though that by writing their interpretation of the vignette, this pushed the remaining questions onto a new page of the document. It could, therefore, be easy for participants to forget that there was a further aspect of the study.

None of the participants chose to look up what some of the terminology meant, despite 13 saying that they felt they had understood most and 4 stating that they only understood some: only 1 participant said they understood all of the terms. It was not stated at any point in the study that participants should not look up terminology if it was unfamiliar. It may be that participants inferred that this was the case as the study was clearly investigating their understanding and did not wish to present an authentic response. It leads to the question of whether psychological therapists who

practised online would actually look up terminology if they were uncertain of its meaning. However, this precludes the possibility that the psychological therapist has not directly asked the client what they meant by certain terms.

5.4.2 Presumptions

Although there was not a separate area for people to write down any further comments on the study, one participant chose to do so at the end of the summary – written in parentheses so that it was clearly not a part of the vignette. The participant commented that the research was "exposing a lot of the assumptions we make in the communication process. It required a surprising amount of energy to ensure I was not simply filling in gaps with what I thought would be going on" (participant 19). The same participant further commented on how they felt anxious knowing that they were making assumptions.

It is a fairly normal process for people to make assumptions in life. This is similarly true when conducting therapy. It is, perhaps, an unconscious process as could be inferred from participant 19's comments. There were further examples of participants making assumptions about the client, which cannot be inferred from the vignette:

"She has never, before this message, disclosed the abuse or received counselling-type help" – participant 12

"abuse started when she was only 7 years old by her uncle who used to do it under the pretext of visiting her when her mother died" – participant 15

There were some assumptions as to the 'author' of the vignette's age with many participants referring to her as a "young person", "young woman", "girl" or "young girl." There are only two

references to the author's age throughout the vignette, at age 7 and age 15. After this, there is no inferred time frame for the described events which came later.

Psychological therapists use their own experiences, both personal and from therapeutic work as well as relying on theory and published case studies for key issues, such as historical abuse or self harm. The majority of participants have been working in a traditional therapeutic manner for many years, using skills from their training in communication. Perhaps there would need to be specific training in how to conduct online communications for therapeutic purposes.

5.4.3 Therapeutic relationship

The biggest criticism of internet therapies is the supposed lack of therapeutic relationship due to the psychological therapist and client being in different locations and, perhaps, never meeting. This study had no intention of trying to create a therapeutic relationship: participants clearly knew that this was an study. There was no personal information given about the client and no introduction. Nor were there any questions for a psychological therapist to respond to; it was not found on a therapeutic or supportive website – it was simply material. Despite this, however, some participants demonstrated that they were looking beyond the material and starting to create a formulation for the client. For example, comments from participants' summaries:

"The passage seems to discuss how a number of critical incidents during her childhood may have had a significant impact on her current difficulties. It explains how the loss of both primary care givers (Mom=death, Dad=Prison??)" and *" Some of her early experiences of relationships as well as her social standing may have influenced her decisions regarding her choice of boyfriend which may have led the pattern of abuse to continue"* –participant 3

"when she refused sex due to being traumatised by the earlier abuse" – participant 6

"bullied at school & in combination with this and mum dying started self harming" – participant 10

These comments show that participants were interested in more than was simply written in the vignette and so began to create the client's story. This is a normal process as part of an assessment for the psychological therapist in order to begin to engage with the client's experiences and to start creating a formulation. Formulations are an important aspect to therapy as they provide an overview of the client's situation and problems as well as directing the interventions used (Johnstone & Dallos, 2006). They further help the client to understand their current situation in light of their previous experiences which is indicative of the above comments. It is not a straightforward process and a psychological therapist cannot suppose causality as there is the possibility of drawing the wrong conclusion, which would be detrimental to the relationship and treatment. Evidence of this can be seen below:

"there was mention of an overdose, unknown whether it was a suicide attempt or serious self harm – query eating disorder" and *"She attempted suicide again (intimating first attempt was at loss of life)"* – participant 22

The participant was uncertain of some aspects of the client's experiences and so, even knowing that they will never meet this client, is already formulating the questions to which they would need answers.

5.4.4 Understanding

All of the participants in this study demonstrated a good overall understanding of the vignette. However, there may have been some confusion over some of the specific acronyms. For instance,

"has not spoken about her difficulties before (child sexual abuse??)" - participant 3

"she has been taking something (ads?)" – participant 11

These participants were clearly uncertain of what some netspeak terms meant but, in one instance, made an informed guess. It is unclear what informed this guess though: whether the participant used the material from the rest of the vignette to put the acronym into context or if it was purely guessing. Again, it is interesting to note that whilst these terms were unknown to the participant, they did not, for instance, perform an internet search to try to discover the meaning.

Further misunderstanding was particularly evident with statement 19 where a number of participants read 'su' as self-harm (su is actually the common abbreviation for writing about suicide). This could have been due to the priming of earlier descriptions of self-harming behaviour and so led participants to rely on their memories to add detail that was not there. This was further seen where participants interpreted the same abbreviation as being an overdose.

There were a number of participants who inferred or read items in the vignette that were not actually written in it. In order to read text on a page, people do not process every individual character but instead skims over the letters and processes this by 'filling in the blanks' essentially (although this can be dependent on word recognition, both orthographically and semantically, Recihle, Pollatsek, Risher & Rayner, 1998; Rayner, 2009). As such, the more adept a person is at reading, the quicker this process is and the more letters are skipped over. Where there is a gap in a piece of text, or, in this case, within a story, people rely on their memory to fill in these blanks.

"her <u>school mates suggesting</u> that her father had murdered her mother" and *"when the baby arrives he is unhappy at their living situation"* and *"Her neighbours call the police but he <u>has stopped hurting her</u> when they arrive"* participant 20

"The girl <u>slowly</u> started to feel better" – participant 15

The comments which have been underlined do not appear anywhere in the vignette. It does not particularly change the meaning of what has been written but it is slightly misinterpreted. Adding detail to a client's own words can be considered judgemental or that the psychological therapist is not paying attention to what the client is saying. Regardless of the intent, this is not conducive to a strong therapeutic alliance.

5.4.5 Seeing what is not there

There were further instances of participants having misunderstood the vignette, examples include:

"I'm thinking about what to do next" – participant 9

"she described that she felt responsible for the assult [sic] as she would freeze" and "she felt stuck about the possibility of change" – participant 17

"she felt alone and unable to communicate it [child abuse]" and *"used to make herself sick, and once fainted, leading to the suggestion that she had overdosed"* and *"She suggested that she we [sic] blackmailed when she refused sex, where her boyfriend would start to self harm to get this way"* and *"she then asks the forum/message board what to do next, seeking help with her situation"* – participant 19

"She begins to take drugs to cope with her school and home life" participant 20

Some of the participants' comments here are, put simply, wrong: they were neither misinterpretations nor therapist interpretations. There are no references to drug use in the vignette, nor of the author thinking about or asking for advice on what to do next ('she' says that she doesn't

know what to do next –literally: “idk what 2 do nxt”). There are also no references to blackmail, her boyfried self-harming, fainting or feeling alone (although this last point could be from the author saying she was unable to tell her mum). Further, the comments from participant 17 imply a level of responsibility onto the author which is never mentioned in the vignette.

It is not clear if the participants were just not paying attention to certain parts of the vignette, which, had this been a real case, would not be professional or helpful to the client. It is important for psychological therapists to maintain very high levels of attention to clients whether in face-to-face or internet therapies as it demonstrates to the client that they are valued and worth listening to.

5.4.6 Terminology

In writing their summaries of the vignette, some participants used their own acronyms and abbreviations such as “hx” presumable meaning history, “bf” presumably meaning boyfriend, “yp” taken to mean young person, “dr” as shorthand for Doctor and “cos” in place of because. It would have been interesting to be able to follow this up with participants to see if they are using netspeak because the study effectively gave them ‘permission’ as it was written in netspeak. Or, if the abbreviations have become engrained into a participants’ natural language so that they are unaware that they are not using full English.

Further, there were instances of participant’s therapeutic background within their summaries. For instance, some participants worked in a specialist eating disorders service and this could possibly be inferred from some participants choice of wording in their summaries: statement 6 of the vignette wrote “I started 2 make myself sick” which was described as “self-induce vomiting”, “purge by vomiting” and “induced vomiting.” This represents an element of psychological jargon and is usually avoided by psychological therapists when working with clients as it is not conducive to forming a relationship. It could also be construed as, effectively, putting words into the client’s mouth. This

provides additional support for the lexical constraint hypothesis (Bromme et al, 2005) where experts become entrenched in the lexicon of their own field. As such, it becomes their normal language for conversing and requires a conscious effort to use non-specific or jargonistic language. This could be a potential problem for psychological therapists, especially those working within highly specialist areas. Changing the client's words into technical language could run the risk of alienating the client by making them feel inferior to the therapist.

5.4.7 Limitations of this study

It is possible that there was some ambiguity in the instructions given. The questionnaire asked participants to provide a summary of what the vignette stated. This was because, in therapeutic practice, it is often required to write a summary after seeing a client – this may be as a part of general client notes or in a formal letter, for instance, to a GP. The term 'summary' however may have suggested to the participants to only comment on the points they thought were important, which is different to gauging the level of understanding of the netspeak vignette.

An alternative instruction would have been to ask participants to 'translate' or re-write the vignette into standard English. However, this would have made the aims of the study to be obvious to participants and so they may have spent longer trying to decipher them. Further, this would be artificial to how a psychological therapist normally works – it is uncommon to write exact details about what occurred during a therapy session. As such, there is no way to judge how participants had interpreted the question set in providing a summary of the netspeak vignette.

There were some limitations to the design as there was no control condition in order to make a comparison over whether participants understood the netspeak vignette differently to that of a vignette written in standard English. However, this study was exploratory in nature – investigating an issue that has not been previously studied. As such, there was insufficient evidence to support an

investigation of this type. As psychological therapists rely on strong communication skills, it would be expected that there would be no problems in understanding a vignette written in standard English. This, however, may not be the case, demonstrating that there would be merit in comparing how participants understand vignettes when written in different styles.

A further improvement to this study would have been the use of a second researcher to independently compare the participants' interpretations against the netspeak vignette. This would have allowed greater consistency of participants' interpretations and removed any potential subjectivity of the researcher. However, no colleagues or researchers were available to complete this task due to work commitments and time limitations.

5.4.8 Implications for practice and further research

The second part of the analysis was to investigate if there was a relationship between a participant's level of understanding of the netspeak vignette and their personal and therapeutic background. A possibility for future research could incorporate a qualitative aspect to this part of the analysis by conducting interviews or focus groups with the respondents in order to gain a phenomenological understanding of the processes involved with completing this study, for instance, whilst people may have understood the writing, they may have found it frustrating or annoying. Whilst this was not being measured in this study, it would have implications for the psychological therapist's reply and could potentially interfere with their usual therapeutic process. Further, it could explain why certain psychological therapists are drawn to working via the internet and why some chose to avoid it which would further have an impact of the field of internet based therapy. As has been stated, this was not the main focus to this study as this was to investigate understanding rather than emotional response as this would likely be the next stage in this style of research. However, there were some questions asking participants how they found the experience, but with a limited, forced-choice answer.

This research has highlighted that there may be a need for further guidance for psychological therapists considering providing therapy on the internet. They could advise clients to use only standard English, however it would be unusual for a psychological therapist to create such a restriction. Psychological therapists need to be able to engage and recognise the terminology that their clients use, whether this is more generic netspeak or very specific to a community or psychological disorder. It would, therefore, be useful to make therapists aware of the potential for reading more into what a client writes than is actually there and the amount of assumption that can be made by either party.

Chapter 6: General Discussion

This research has raised a number of key issues with regards to internet based therapies, both in understanding and the therapeutic process. It was hypothesised that there would be less of a negative impact on mood for the group that wrote using only netspeak than the group that used full and correct English. However, this study found that there was no difference in the mood states for participants in any of the conditions. As such, this would suggest that the use of netspeak had no impact on the participants' levels of distress when writing about an emotional experience.

This study tests the hypothesis that the use of netspeak will cause a barrier to communication in therapy as it is not universally understood. This incorporated the further question of how well a psychological therapist understood communication when it was written using netspeak. In addition to this, this study also investigated if there was a relationship between how well netspeak was understood and a therapist's background, for instance the length of their practice, age and familiarity with new technology and communication styles.

6.1 Communication

It appears as though there are no obvious barriers for communication between clients and psychological therapists online. However, there needs to be greater awareness of reading what is actually written and not making assumptions as to the client's story. Psychological therapists need to be consciously aware of not inferring more than is actually being said by clients.

Whilst emoticons can be used to demonstrate the emotive process involved for the writer, they are not, perhaps, needed. Strong emotion is easily conveyed through the content – it is difficult to understand that, for instance, the death of a family member is anything other than a sad time. Miall, (2011) stated that to try to qualify it with an unhappy emoticon would trivialise it. ERP (Evoked

Response Potentials) studies conducted on the first 500ms of emotional response to language in the medium of written text have revealed that emotions may heavily influence cognitive processes. They can impact how a reader's memories are aroused to form associations to a character or situation or makes presumptions and assumptions about them.

In short, it seems that the processing of written language will invoke in the reader emotions which in turn draw on the experiences and memories of the reader to aid them in constructing their interpretation at an emotional and contextual level. The end result being that a reader's emotion will affect their interpretation of the language. It can further be expected that different readers may create differing interpretations dependant on their own memories and experiences and the emotions that are evoked as a result.

6.2 Therapeutic process

Internet based therapies are still very new in the therapeutic world. As such, the majority of research currently conducted has been on demonstrating the efficacy of internet therapy when compared with traditional face-to-face therapies. However, even within this, there are no direct comparisons to face-to-face therapy. Research in this area has mostly focused on comparing outcomes of face-to-face therapy with people on a waiting list for therapy (Barak, Hen, Boniel-Nissim, Nagel & Goss, 2010).

The idea of having a relationship with someone via a computer screen may seem unusual or counter-intuitive. However, as has been seen in the hyperpersonal theory and online disinhibition effect, this is not the case. It is, in fact, the opposite – people are more willing to disclose personal information and on a more regular basis than in face-to-face communication.

The idea behind this research was that the use of netspeak may lessen the emotional impact of writing about difficult or distressing experiences. This was based on research which stated that non-emotional words were processed through different neurological pathways than emotional words and that acronyms are again processed differently – as pseudowords (although this depends on the case they are written in). In order for the therapeutic process to be beneficial and for the client to feel better, though, most approaches require that clients fully engage emotionally with their material: by experiencing difficult feelings in a safe environment and so allowing the client to understand where they are coming from and how to best work with it. Thus, it could be questioned whether lessening the emotional impact via netspeak would be appropriate. The premise for this, however, would be that internet therapy using netspeak would be a client's 'first step' towards therapy if they are uncertain about face-to-face or group work. It would also be more suitable for children and young people who are, otherwise, reliant on a parent or guardian seeking out a referral for therapy.

6.3 Limitations of the study

Studies 1 and 2 were primarily conducted with teenage students currently studying for their A-Levels. People need to engage with material for it to have an emotional effect; the first study demonstrated that there was some emotional influence to reading the biography. The experiences described in the biography were very specific and unlikely to be a common experience for the participants in this sample; as it was not similar to their own experiences, it was unlikely to cause a strong enough emotional reaction. As such, the words and acronyms contained in the biography and participant instructions did not provoke enough of an emotional response, which, in turn, means that the response could not be lessened regardless of the condition.

In order to comply with the University ethical guidance, this study was not able to be conducted with a clinical population. It would further be therapeutically unethical as potential clients could be

partway through a therapeutic programme, with which this could interfere and I could not guarantee a client's psychological welfare, nor support them through it. However, the theories from which this study was devised are still sound; it would require a wholly different approach to study, for instance, introducing writing therapy with acronyms at the beginning of a treatment protocol. This was the initial intent for the study – internet based therapies are not meant to replace face-to-face therapy but to be a first step, for people who are apprehensive to begin to engage with a psychological therapist and their emotions.

A comment that was made by a participant after they had completed and returned the study paperwork was that they were uncertain how they were actually supposed to conduct the main part of the study whereby they had to interpret what was written by the client. She was not certain if she was supposed to read from the initial text directly, whilst she tried to interpret it, or if she was supposed to only read it and then not refer back to it whilst deciding on the interpretation. I had intentionally not given instructions on whether to refer to the text or not, however I possibly should have made this clear in the instructions. I wanted to leave it up to the participant as this needed to be an individual choice, rather than a prescribed one. This would make it closer to reality in that a psychological therapist chooses the way of working which they prefer. For instance, when providing therapy on the internet a psychological therapist can choose to have the client's message open whilst they respond to it or they may choose to only read the client's message once or twice and reply to it that way.

Further, on a more practical, and possibly more pragmatic, note, it would be impossible to tell if a participant had specifically referred to the text or not. As such, it seemed rather futile to create and provide instructions when there would be no way of knowing if a participant overtly complied with it.

It is well recognised that recruiting participants to take part in research can be a difficult process. As well as finding appropriate people to take part there is the added complication of how to actually get the person to the study, both in a physical or time-related sense. There were a number of unexpected difficulties encountered in the recruitment of participants for study 3. The inclusion criteria were particularly wide-reaching in order that there would be a large population from which to draw a sample; participants needed to be working or have worked within a therapeutic capacity. They could also be fully qualified or currently undergoing training. As such, this covered thousands of people in England alone. The study was further designed to be completed via email and so it would require no travelling or trying to find appropriate appointment times in which to conduct it. Further, it could be completed at the participant's convenience and it did not have to be finished in one set time. These conditions provided a very large population who were able to take part in the study. Despite this, it was very difficult to recruit participants.

There was no obvious reason for the difficulty in recruiting participants. However, from discussion with colleagues who were also recruiting participants it is possible that the way I had set up the study – to be completed in one's own time and not have set parameters in order to increase likelihood of participation – may, in fact, have caused the opposite effect.

6.6 Implications for Counselling Psychology

As Mallen, Vogel, Rochlen and Day (2005) stated, "Counselling psychologists are in a unique position not only to extend their services to online modes of treatment, but also to conduct research in this area to determine whether online-counselling practices are therapeutically beneficial for clients." (p. 820). It would seem to be a natural progression that psychological therapists begin to offer therapy via the internet. The impetus, therefore, is that counselling psychology should be at the front of this field, in research, training and practice. However, it cannot be seen as being a completely separate entity to traditional therapies; it should be considered as different to face-to-face therapies and not

considered to be either better or worse (Fletcher-Tomenius & Vossler, 2009). Ultimately, it is providing therapy to a population who may not be able to access it otherwise.

The use of netspeak and emoticons, specifically initials and acronyms could be a benefit when beginning to work with clients who have experienced a trauma. Instead of repeated detail which would be the required treatment protocol for trauma-focused CBT or EMDR which are the recommended therapy approaches, it would be more concise. Very emotive words could be changed for the beginning phases for the therapy to allow the client to start the therapeutic process.

It could, however, both for a psychological therapist, and supervisor, reduce the possibility of vicarious traumatisation when a client is re-telling their experiences. This is a particular area of difficulty when working with clients who have experienced trauma (Pross, 2006).

A surprising result from this study was the level of assumption made by participants when writing their summaries. This included making assumptions about the vignette author's background and childhood as well as the author's age and thought processes. Some of the assumptions made by participants could be explained by Walther's hyperpersonal communication theory – one aspect of which is that an individual creates an idealised image of the person with which they are communicating. It is possible that the psychological therapists created an 'image' of the author of the vignette as a 'depressed person.' This image is then based on individual previous experiences working with clients who may have had similar histories or presented with similar issues described in the vignette. As such, their summaries could have been influenced by this image of a depressed person including assumptions of details that the psychological therapist would expect to see.

6.7 Further study

The efficacy of internet therapies has been well illustrated in a number of fields. It would be useful now to investigate how different approaches could be adapted for use over the internet. Further, it

would be interesting to explore people's experience of online therapy, both from the client's and psychological therapist's point of view.

There is further need to see how language is used in internet therapies both from the client and the psychological therapist to understand the reasons why people choose to write in the way they do online and if there is a therapeutic benefit or hindrance in different styles.

This study has highlighted the amount of assumption made by the psychological therapists when potentially conducting text-based therapies online. It is not clear whether the assumptions were made consciously or unconsciously by the participants and this would be a useful area to conduct further study. It would also be useful to study whether this level of assumption is made during face-to-face therapies as well as text-based internet therapies. This would have obvious implications for Counselling Psychology as the wrong assumptions can be detrimental to the client and therapeutic process. It would be useful to know how much assumption is made by psychological therapists as this could be used in both training and supervision to inform psychological therapists of the potential for assumption to be made and the need to continuously monitor and reflect on the therapeutic process.

Chapter 7: Conclusion

The aim of the current research was to investigate the use of netspeak. Specifically, whether using netspeak would reduce the emotional impact of discussing distressing topics in internet based therapies. Further, whether this was the case or not, it would not matter if the psychological therapist does not understand what is written.

No differences were seen from re-writing an emotional biography in netspeak to English which could have been due to the material used – it may not have provoked a strong enough emotional reaction and there could have been a lack of engagement with it. Despite some concerns around confidence, psychological therapists were able to understand the overall issues in a netspeak vignette.

This research has suggested the possibility that there may not be as big a difficulty as previously thought when it comes to creating a therapeutic relationship via the internet. Whether due to training, experience or a general empathic nature, psychological therapists began to formulate the client's experiences and thus what could be achieved from therapy. However, psychological therapists need to be more consciously aware of reading only what is written and not inferring from their own experiences of client work. Otherwise this would have the potential to alienate clients and damage any therapeutic relationship, either by inferiority from language use or if the client needs to correct a psychological therapist's wrong assumption or interpretation.

Whilst some psychological therapists may have lacked confidence in their understanding of netspeak, they consciously chose to not research any of the terminology used, even where there was an obvious lack of understanding. Conversely, this, along with psychological therapists making

assumptions about the vignette, suggests a possible over-confidence which would need to be researched further.

Chapter 8: Critical Appraisal

In this chapter, I will critically evaluate the research presented in this portfolio. This will be done by discussing my reasons for undertaking it, reflecting on the process of conducting and writing up the research and finally, an evaluation of the research as a whole.

8.1 Background to the research

The idea for this research began around five years ago as part of a previous research dissertation. As part of my MSc in Counselling Psychology I conducted a thematic analysis of people's reasons for both starting and stopping self harming behaviours as written on a specialist forum. I read hundreds of posts, of varying lengths, in preparation and had 85 vignettes in the final study. The vignettes described very personal and often quite distressing personal histories of each person and became increasingly difficult to read, especially where people described long experiences of abuse, despair and violence.

A number of the messages on the forum contained abbreviations and acronyms, such as sh (self harm), sui (suicide) and ed (eating disorder). When I first started reading the messages on different self-harm fora, the meanings of these were not immediately clear. Some I knew from experience on the internet, some I could guess due to the context in which they were written but others were either too specific to the boards or too obscure. I was not alone in not understanding as there were regular posts from users asking what certain terminology meant. There were no posts or discussions on why people chose to use certain acronyms etc or their aetiology. However, without a clear key or definitions of terminology, it could imply that netspeak was used here as a form of promoting and sustaining an in-group identity.

I conducted a thematic analysis on the 85 vignettes to look for broad themes related to individual's perceived causal understanding of their self harming behaviour. As was required by the methodology, the vignettes had to be read and re-read a number of times in order to start to identify the themes. From reading the vignettes, I found that where netspeak was used, it was easier to read than where terms were written out in full.

I did, and still do, find it a little strange when a website or forum does not provide some style of key for common abbreviations or acronyms, which would be helpful for different reasons – it would serve to clarify where there could be misunderstanding or multiple possible meanings. It would further help newcomers to a website, especially those seeking information in a potentially unknown area. This is particularly important for sensitive topics where people are looking for information and feel otherwise uncomfortable discussing it with friends or a doctor. In these circumstances, people often use the internet in the first instance for advice, information or understanding.

Creating and developing language can form a shared bond between people. This can deepen a sense of community. This could be one of the reasons that a key is not provided as, without it, there is a sense of in-group identity – a sense of 'we know this and you don't'. This can be helpful in creating a strong community atmosphere and thereby allowing a level of trust between the group members to develop. Whilst this can be helpful for the people within the community, it can be off-putting and provoke anxiety for people who are not an obvious part of it.

8.2 Research process

It is a difficult process to recruit participants to studies. As such, I have often found it useful to let the methodology define the research process. Research within the counselling field is often focused on case studies and interviews in order to understand an individual's subjective experience; therefore there is a strong focus on using qualitative methodology and analysis.

I have never particularly favoured one methodology or approach over any of the others – I prefer to let my research questions dictate the way they should be studied or analysed. That being said, however, I have a huge dislike of transcribing – a process often required when conducting qualitative research and interviewing people about their own experiences. It is in this respect that I almost feel lucky for preferring internet-based research. Doing this provides the same rich level of data but without having to transcribe any material.

This research is unique, which, whilst being exciting, has presented with a number of complications and difficulties, the greatest of which was in having no paradigm to follow. This research was not perfect (although I expect none ever really is). As such, it has provided an interesting learning experience – learning by doing, effectively. Although I have designed and conducted research in previous degrees, none have been as complex as this. It is quite disappointing to look back on the research process and find a number of flaws, however, this is a natural part of the process and a way to refine theory and practice.

There are a number of revisions I would make if I were to repeat this research. As I discussed in the research, it would have been more beneficial for participants to write about their own experience as this would have given a better indication of level of distress against using netspeak or other forms of communication. This was not done due to ethical guidance and rightly so. However, I would like the opportunity to do this research alongside a therapeutic plan where there could be better boundaries and level of care for participants. I am aware that this could potentially bring about confusion over a dual-relationship, as that of psychological therapist and researcher. As such, I am mindful that this would need to be carefully managed, both in supervision and on a personal level. Overall, though, I believe that it would make me a better psychological therapist and researcher, which will further help my clients and participants.

8.3 Results

It has been a long while since I had had practice using statistical analysis and I had somewhat underestimated how this would affect me when working through the results. This represented my biggest stumbling block of the research process and followed me to the writing up stage. This process was further confounded by my misinterpretation of the scoring procedure for the UMACL (although the guidance was unclear which, in itself, has reiterated the need to create a good, clear scale and procedure). It also taught me the value of double checking results and analyses and to have the confidence that if something looks wrong than it may well be – it is not a measure of my analysing abilities.

This uncertainty and confusion left me feeling uncomfortable with the gaps in my knowledge. I cannot expect to know everything but I can, and intend to, learn more. This will then enable me to conduct research and analysis with much more confidence in the future as well as have a clearer picture of other published research.

Whilst it seems rather ridiculous to state, I was actually fascinated by the results of study 3. It was amazing to see the variety of responses that people had interpreted from the same piece of text. One of the participants contacted me after they had completed the study to say that they were surprised by their own level of presumption. I hadn't expected to find anything like this – the purpose of the netspeak research was to see if participants understood the abbreviations and acronyms etc not specifically to judge how they had interpreted it. This has opened up a new area of interest that I intend to research in further depth as this is also important to learning about how counselling psychologists communicate and understand clients in internet therapies. It has further made me reflect on just how much assumption I might make in face-to-face therapies also and so has had a positive impact on my practice.

It was of note that this is of interest to others, as well as myself, and that this task is now going to be used as an exercise for first year trainees on the doctorate course in order to demonstrate how easy it is to make assumptions. In light of this, it is a further exercise that I hope to incorporate into my own teaching practice.

8.4 Structure

The biggest difficulty in writing up the research report was in devising an appropriate structure. It had to be cohesive, and ultimately make sense, however it also had to meet the standards set within the research handbook. The handbook described a somewhat unusual structure in that the literature review is a separate piece of work to the actual research report, whereas in all other research I have conducted, the literature review is the start of the report and evolves into the introduction. Whilst this does not seem to be a major difference, and I certainly didn't think it would be originally, when actually writing the project up, it presented an awkward process. This has left the research report in two halves and not reading as one whole, which is the more expected format. It has, however, allowed for a more wide-ranging literature review within which to set the research.

8.5 Reflexivity

It was, at times, very frustrating to not be able to discuss my research with friends and colleagues, as this was a regular talking point both in university and professional placements. Especially as the first question people ask is what I was writing my thesis on. However, it was important to stay quiet in order to have as wide a population as possible from which to recruit participants.

This has been a particularly difficult year with a number of complications involved in studying and practice. It has given me the opportunity to understand what it really means to be independent in this career. I have thus been able to feel a different sense of pride in the work I have undertaken,

although this has also come with higher levels of anxiety and self-doubt which has been difficult to manage at times.

In writing this thesis, I came to rely on fellow students to keep me going. I had always considered myself to be highly independent, both personally and professionally and this felt like a huge leap to make. Myself and my colleagues have supported each other through the process of completing our research and each offered and received guidance and support. This allowed us to engage with our research process in far more depth than simply working through it alone. Learning to work collaboratively, even on completely individual projects has given me a better perspective on teamwork and ultimately, has made me a better researcher.

Through conducting this research, I have a learnt a great deal through conducting this research – as a researcher, tutor and practitioner. On a pragmatic level, I feel more comfortable and confident in designing and conducting research. Further, and most importantly, I am also excited about the prospect of carrying on the research I have started.

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Appendices

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Appendix 1: Res20

UNIVERSITY OF WOLVERHAMPTON

RES 20A
(October 2003)

To be completed by SEC:
Date Received: Project No:

School of Applied Sciences
Behavioural Sciences Ethics Committee:
submission of project for approval

- **This form must be word processed – no handwritten forms can be considered**
- **ALL sections of this form must be completed**
- **No project may commence without authorisation from the Divisional and School Ethics Committees**

CATEGORY A PROJECTS:

There is no significant interference with participants' physical or psychological wellbeing. In detail:

• The research procedure is not likely to be stressful or distressing.
• The research materials are not of a sensitive, discriminatory or otherwise inappropriate nature.
• The participants are not members of a vulnerable group, such as those with a recognised clinical or psychological or similar condition.
• The research design is sufficiently well-grounded so that the participant's time is not wasted.

Projects involving access to confidential records may be considered Category A provided that the investigator's access to these is part of his/her normal professional duties.

Category A projects will be approved by the Behavioural Sciences Ethics Committee and monitored by the School Ethics Committee. The School Ethics Committee will not normally examine individual Category A projects but receives a record of projects that have been approved at subcommittee level.

Title of Project:	**The use of 'netspeak' in communicating distressing topics on the Internet**
Name of Supervisor: (for all student projects)	**Dr Chris Fullwood**
Name of Investigator(s):	**Lucy Anne Daynes**
Level of Research: (Module code, MPhil/PhD, Staff)	**Practitioner Doctorate Counselling Psychology**
Qualifications/Expertise of the investigator relevant to the submission:	**BSc (Hons) Psychology & Criminology; MSc Counselling Psychology**

Participants: Please indicate the population and number of participants, the nature of the participant group and how they will be recruited.	**Experiment 1 & 2 will use students from the University of Wolverhampton, 10 for Exp 1 and 60 for Exp 2 and recruited by email. Experiment 3 will use practising therapists, either currently in training or qualified in order to give a wide range of experience. This sample will be accessed through advertising within electronic publications**

	from the British Psychological Society's Division of Counselling Psychology as well as contacting universities who offer training to at least postgraduate diploma in Counselling.

Continued overleaf

Please attach the following and tick the box* provided to confirm that each has been included:

**in the case of undergraduate projects, this should be done by supervisors to confirm that each part is properly constituted*

Rationale for and expected outcomes of the study	✓
Details of method: materials, design and procedure	✓
Information sheet* and informed consent form for participants **to include appropriate safeguards for confidentiality and anonymity*	✓
Details of how information will be held and disposed of	✓
Details of if/how results will be fed back to participants	✓
Letters requesting, or granting, consent from any collaborating institutions	**n/a**
Letters requesting, or granting, consent from head teacher or parents or equivalent, if participants are under the age of 16	**n/a**
Is ethical approval required from any external body? NO **If yes, which committee?** *NB. Where another ethics committee is involved, the research cannot be carried out until approval has been granted by both the School committee and the external committee*.	

Signed: l.a.daynes (Investigator) Date: 31.01.11

Signed: ..... (Supervisor) Date: .....

Except in the case of staff research, all correspondence will be conducted through the supervisor.

FOR USE BY THE SCHOOL ETHICS COMMITTEE

Subcommittee Approval Granted: ..... (Chair of Behav Sci Ethics Committee) Date: .....

School Approval Granted: ..... (Chair of School Ethics Committee) Date .....

Appendix 2: Experiment 1: Letter to headteacher

Mrs S O'Farrell
Headteacher
Thomas Alleyne's High School
Dove Bank
Uttoxeter
ST14 8DU

Dear Mrs O'Farrell,

I am contacting you with regards to conducting research in Psychology. I am currently studying for the Practitioner Doctorate in Counselling Psychology at the University of Wolverhampton. As part of my studies, I am conducting research into the use of language in internet based therapies: specifically, if the use of acronyms, initials and emoticons reduces the level of distress when writing about uncomfortable topics. As this style of communication is most prolific amongst young people, I have chosen to conduct my research amongst 17-19 year olds. With your permission, I would like to ask your A-Level Psychology students if they would agree to take part in my research. This would give your students the opportunity to experience psychology research first hand and I would also be willing to lead a discussion on the practical applications of psychology.

The study requires participants to read a page of text, describing a typical blog entry and then complete a questionnaire assessing mood. Following this, participants re-write the blog and complete the mood questionnaire a second time. There is then a short debrief which involves watching amusing video clips and eating sweets. All participants are given a detailed information sheet to explain the experiment clearly as well in order to give their consent. All data will be strictly confidential and anonymous. The experiment should take 30 minutes to complete.

The experiment has been given ethical approval by the University of Wolverhampton. If you are willing to allow the research to take place or would like further information, then please contact myself – l.a.d@wlv.ac.uk or my supervisor, Dr Chris Fullwood – c.fullwood@wlv.ac.uk

Thank you for taking the time to read my request and I look forward to your response,

Lu Daynes

Appendix 3: Experiment 1: Information sheet

Study Title: Communication in Internet-based therapy

Dear Sir/Madam,

As part of my doctoral thesis, I am conducting research into communication and the use of language when discussing uncomfortable or distressing topics on the Internet. The research is being supervised by Dr Chris Fullwood. This letter has been written to provide you with all the information on the study to enable you to decide if you wish to take part. Please read it carefully and ask any questions if you would like any further information or if it is not clear. Thank you for your time.

Study

The purpose of the study is to explore the way in which people choose to write about uncomfortable or distressing topics on the Internet. If you choose to take part in the study, you will be asked to attend the university at a specific day and time – the study will be carried out in groups of up to 10 people at the University of Wolverhampton. You will have to read a paragraph giving an individual's account of domestic violence, sexual abuse and self harm. This paragraph contains potentially emotionally distressing material. You will also be required to complete a brief questionnaire at the beginning and again at the end.

Confidentiality, anonymity & withdrawal

You will not be required to give any identifying information. As such, all data is both confidential and anonymous. The data you provide may be used in a subsequent experiment, in which case where the information came from will not be identified. You have to right to withdraw at any time during the experiment without giving a reason.

The data collected will be seen by the researcher, supervisors and the examiners only. The results of the study may be published in professional journals and presented at conferences. These will also be reported in a way that preserves confidentiality.

Further information and contact details

After reading this information if you would like to participate in this study, please contact Lu Daynes in order to book a time to take part:

l.a.d@wlv.ac.uk

If you have any concerns or questions about this study or the way it has been carried out, you can contact Dr Chris Fullwood at the University of Wolverhampton:

C.Fullwood@wlv.ac.uk

Appendix 4: Experiment 1: Consent form

CONSENT FORM

Study Title: Communication in Internet-based therapy
Name of Researcher: Lu Daynes

Please tick or cross each box to show that you have read and understood it

- I confirm that I have read and understand the information sheet of the above study and have had the opportunity to ask questions ☐
- I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. ☐
- I understand that I will be expected to read a piece of text, which contains potentially emotionally distressing material including abuse, self harm and domestic violence ☐
- I understand that I will then complete a brief questionnaire that contains no identifiable information ☐
- I agree to take part in the above study. ☐

Name of ~~Person~~ ~~Date~~ _____ Signatur~~e~~ _____

(Please use blocked capitals)

Appendix 5: Experiment 1 & 2: vignette

I don't really know what it all started but I remember when I was seven, my uncle sexually abused me. At first it wasn't much, he didn't come over that often but then mum got sick, breast cancer and he started to come around more often. I tried to hide. Mum had no idea what was going on and she would never have believed her own brother was capable of it anyway. Stupid really considering she did nothing about dad battering her whenever he felt like it. It always started the same way, he'd be completely drunk, blame someone for anything he could come up with and then whoever was closest got punched. I don't think I remember ever seeing mum without a black eye – she was good at getting in his way so he would hit her instead of us. The cancer was so quick and she died within six months and my world pretty much fell apart after that. I told everyone at school that dad had killed mum. The teachers stopped listening to anything I said and the other kids started bullying me and spreading rumours. I hated everything. I thought when mum died that uncle would stop coming round but he didn't. started making up reasons for him to take me out. I didn't tell anyone what he was doing because I was so scared. No one would believe me and I'd get taken away from my sister, he never tried to touch her, just me. I tried to pretend that nothing happened and in the end just stopped talking to anyone. I think it was around this time that I started throwing up and starving myself, I didn't deserve food. A girl at school caught me trying to throw up one day and told everyone else, started calling me freak and mental and throwing bits of food at me. I don't know what made me think of it but when I went home I took a knife from the kitchen and cut my leg. It was like everything stopped for a while – no bullying, no abuse, nothing. I used to self harm every day when I got home from school, it was the only way I could get through the day. When I was fifteen, my periods stopped and I was convinced I was pregnant. I couldn't handle people finding out what had happened and wanted to kill myself. I took an overdose. My sister found me and called an ambulance. I told the doctor it was an accident and convinced them I hadn't tried to commit suicide. He then asked me how long I had an eating disorder, I hadn't realised it was so obvious. I felt bad that I had scared my sister but I couldn't stop self harming.

I left school and got a job where I met JS. He was nice to me and didn't freak out when he saw the cuts or after I told him about the overdose. He lived with friends so I could go there instead of home and no-one knew where I was. We'd have a laugh and a drink and have a great time. When it came to sex I'd freeze up, I couldn't tell him about the abuse. He got really angry and called me a slut and a whore and accuse me of cheating on him. He'd hit and kick me a few times, do what he wanted with me and then go and laugh about it with his mates. Then he'd bring me a drink and say he was sorry but it was my fault for leading him on. The self harming got worse and I'd drink so much I was sick. I passed out a couple times at work, I thought it was from not eating but this time I was pregnant. J was excited and we got a council flat together. Everything was fantastic and I had a baby girl – AL. then J got angry at the crying and was screaming at the baby to shut up, I pushed him away from her and he lost it, just kept hitting me and slammed me into a wall. The neighbours called the police but he'd left before they got there. They said they were worried and called social services who took my baby away and put her in care until I got help. I was a crap mother, I couldn't protect her, I couldn't protect myself. I took another overdose and then self harmed until I passed out. I woke up in hospital and then got moved to a psychiatric unit. The self harm didn't stop, I had to get more creative though. I was given anti depressants and various other types of medication and told to talk about my problems. I fell apart, how had my life got so low? I stayed there for a few months until my eating disorder was under control and I no longer wanted to commit suicide. I still take anti depressants and talk to a therapist. I haven't talked about the childhood sexual abuse but I think she

suspects something. We talk about the domestic violence and my baby girl who I hope to see again soon. I'll never stop self harming or not have an eating disorder, but I actually feel I'm doing better. Some days anyway! Anyway, thank you for reading my story, felt good to rant.

Appendix 6: Experiment 1: questionnaire – Likert scale

Thank you for reading the paragraph. Please consider what you have just read and rate your thoughts and feelings below (1=completely agree, 2 = somewhat agree, 3 = neither agree nor disagree, 4 = somewhat disagree, 5 = completely disagree)

	1	2	3	4	5
I understood the paragraph	☐	☐	☐	☐	☐
I enjoyed reading it	☐	☐	☐	☐	☐
I wish I had never read it	☐	☐	☐	☐	☐
I believe the story is true	☐	☐	☐	☐	☐
I felt happy after reading it	☐	☐	☐	☐	☐
I felt uncomfortable after reading it	☐	☐	☐	☐	☐
I don't care about the person	☐	☐	☐	☐	☐
I didn't like reading it	☐	☐	☐	☐	☐
I felt sad for the person writing it	☐	☐	☐	☐	☐
I don't think it was a real account	☐	☐	☐	☐	☐
I felt depressed after reading it	☐	☐	☐	☐	☐
I read lots of 'real-life' stories	☐	☐	☐	☐	☐
I rarely read 'real-life' stories	☐	☐	☐	☐	☐

Appendix 7: Experiment 2: Information sheet

Study Title: Communication in Internet-based therapy

Dear Sir/Madam,

As part of my doctoral thesis, I am conducting research into communication and the use of language when discussing uncomfortable or distressing topics on the Internet. The research is being supervised by Dr Chris Fullwood. This letter has been written to provide you with all the information on the study to enable you to decide if you wish to take part. Please read it carefully and ask any questions if you would like any further information or if it is not clear. Thank you for your time.

Study

The purpose of the study is to explore the way in which people choose to write about uncomfortable or distressing topics on the Internet. If you choose to take part in the study, you will be asked to attend the university at a specific day and time – the study will be carried out in groups of up to 10 people at the University of Wolverhampton. You will be asked to read a paragraph giving an individual's account of domestic violence, sexual abuse and self harm and complete a brief questionnaire. This paragraph contains potentially emotionally distressing material. You will then be required complete a short activity based on what you read in the first paragraph (see attached information). Finally, you will be asked to complete a brief questionnaire.

Confidentiality, anonymity & withdrawal

You will not be required to give any identifying information. As such, all data is both confidential and anonymous. The data you provide may be used in a subsequent experiment, in which case where the information came from will not be identified. You have to right to withdraw at any time during the experiment without giving a reason.

The data collected will be seen by the researcher, supervisors and the examiners only. The results of the study may be published in professional journals and presented at conferences. These will also be reported in a way that preserves confidentiality.

Further information and contact details

After reading this information if you would like to participate in this study, please contact Lu Daynes in order to book a time to take part:
l.a.d@wlv.ac.uk
If you have any concerns or questions about this study or the way it has been carried out, you can contact Dr Chris Fullwood at the University of Wolverhampton:
C.Fullwood@wlv.ac.uk

Appendix 8: Experiment 2: Consent form

CONSENT FORM

Study Title: Communication in Internet-based therapy
Name of Researcher: Lu Daynes

Please tick or cross each box to show that you have read and understood it

- I confirm that I have read and understand the information sheet of the above study and have had the opportunity to ask questions ☐
- I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason ☐
- I understand that I will be expected to read a piece of text, which contains potentially emotionally distressing material including abuse, self harm and domestic violence ☐
- I understand that I will then be asked to write a short synopsis of what it said ☐
- I understand that I will be asked to complete 2 brief questionnaires that contain no identifiable information ☐
- I agree to take part in the above study. ☐

Name of ~~Person~~ ~~Date~~ Signature~~

(Please use blocked capitals)

Appendix 9: Experiment 2: UMACL (mood adjective checklist)

UWIST MOOD ADJECTIVE CHECKLIST

You will be given a list of words that describe the moods or feelings that people have. To complete the checklist, you are asked to indicate how well the word describes how you feel AT THE MOMENT (and not how you usually feel). You must choose one of the four possible replies; these choices are numbered from one to four. Simply circle the number that corresponds to the reply that best describes your present mood.

Work quickly and don't spend too much time thinking about your answer. The first answer you think of is the best one. Answer every word, even if you find it difficult. Answer as honestly as you can, and what is true to you. Please do not choose an answer because it seems like the right thing to say. Your answers will be kept entirely confidential.

Does the adjective describe your present mood…?

	Definitely	Slightly	Slightly not	Definitely not
1. happy	1	2	3	4
2. dissatisfied	1	2	3	4
3. energetic	1	2	3	4
4. relaxed	1	2	3	4
5. alert	1	2	3	4
6. nervous	1	2	3	4
7. passive	1	2	3	4
8. cheerful	1	2	3	4
9. tense	1	2	3	4
10. jittery	1	2	3	4
11. sluggish	1	2	3	4
12. sorry	1	2	3	4
13. composed	1	2	3	4
14. depressed	1	2	3	4
15. restful	1	2	3	4
16. vigorous	1	2	3	4
17. anxious	1	2	3	4
18. satisfied	1	2	3	4
19. un-enterprising	1	2	3	4
20. sad	1	2	3	4
21. calm	1	2	3	4
22. active	1	2	3	4
23. contented	1	2	3	4
24. tired	1	2	3	4
25. impatient	1	2	3	4
26. annoyed	1	2	3	4
27. angry	1	2	3	4
28. irritated	1	2	3	4
29. grouchy	1	2	3	4

Appendix 10: Experiment 2: Condition instructions

Control Group

Please re-write the information given in the paragraph that you read using your own words. You can write as much or as little as you like in the time allotted, however please write as much as you can remember. It should be written as a personal account, for instance in a diary or a letter, using first person (eg. "I said…").

You have 15 minutes for this activity.

Group A

Please re-write the information given in the paragraph that you read using your own words. You can write as much or as little as you like in the time allotted, however please write as much as you can remember. It should be written as a personal account, for instance in a diary or a letter, using first person (eg. "I said…"). When writing your account, try to use ONLY textspeak, netspeak, abbreviations or acronyms (initials) where possible. Some examples of this are given below.

You have 15 minutes for this activity.

General terms

LOL	laugh out loud
:) / :(	happy/unhappy face
2/4	to, too, two / for, four
2m/tm	tomorrow
BTW	by the way
FYI	for your information
THX/TY	thank you
G2G	got to go
BF/GF/OH	boyfriend/girlfriend/other half
IDK	I don't know

Specific emotional terms

SH	self harm
ED	eating disorder
SA	sexual abuse
su/sui	suicide
DV	domestic violence
CSA	childhood sexual abuse
PG	pregnant
OD	overdose
AD	antidepressants
SS/CO	social services/care order

Group B

Please re-write the information given in the paragraph that you read using your own words. You can write as much or as little as you like in the time allotted, however please write as much as you can remember. It should be written as a personal account, for instance in a diary or a letter, using first person (eg. "I said…"). When writing your account, try to use ONLY full and correct English, you should not use any textspeak, netspeak, abbreviations or acronyms (initials). You have 15 minutes for this activity

Appendix 11: Experiment 2: SPSS output

Between-Subjects Factors

		Value Label	N
condition	1.00	netspeak	20
	2.00	english	17
	3.00	own words	16

Descriptive Statistics

	condition	Mean	Std. Deviation	N
HTbefore	netspeak	17.7500	3.78188	20
	english	17.8824	5.43004	17
	own words	17.5625	4.99291	16
	Total	17.7358	4.63744	53
HTafter	netspeak	18.7000	4.35407	20
	english	17.5882	5.20887	17
	own words	16.3750	3.82753	16
	Total	17.6415	4.51959	53

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
17.643	.555	16.528	18.758

2. condition

Measure: MEASURE_1

condition	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
netspeak	18.225	.899	16.418	20.032
english	17.735	.976	15.776	19.695
own words	16.969	1.006	14.949	18.989

3. time

Measure: MEASURE_1

time	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	17.732	.652	16.422	19.042
2	17.554	.621	16.306	18.802

4. condition * time

Measure: MEASURE_1

condition	time	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
netspeak	1	17.750	1.057	15.627	19.873
	2	18.700	1.007	16.677	20.723
english	1	17.882	1.147	15.579	20.185
	2	17.588	1.092	15.394	19.782
own words	1	17.563	1.182	15.189	19.936
	2	16.375	1.126	14.114	18.636

General Linear Model

Between-Subjects Factors

		Value Label	N
condition	1.00	netspeak	20
	2.00	english	17
	3.00	own words	16

Descriptive Statistics

	condition	Mean	Std. Deviation	N
TAbefore	netspeak	18.6000	4.05748	20
	english	18.7647	4.53499	17
	own words	19.1875	3.54436	16
	Total	18.8302	4.00354	53
TAafter	netspeak	18.3500	3.82891	20
	english	19.6471	4.76893	17
	own words	20.5000	4.51664	16
	Total	19.4151	4.36522	53

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	time	Type III Sum of Squares	df	Mean Square	F	Sig.
time	Linear	11.039	1	11.039	1.494	.227
time * condition	Linear	11.958	2	5.979	.809	.451
Error(time)	Linear	369.476	50	7.390		

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	38629.642	1	38629.642	1370.572	.000
condition	33.653	2	16.827	.597	.554
Error	1409.253	50	28.185		

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
19.175	.518	18.135	20.215

2. condition

Measure: MEASURE_1

condition	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
netspeak	18.475	.839	16.789	20.161
english	19.206	.910	17.377	21.035
own words	19.844	.939	17.959	21.729

3. time

Measure: MEASURE_1

time	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	18.851	.562	17.721	19.980
2	19.499	.601	18.292	20.706

4. condition * time

General Linear Model

Between-Subjects Factors

		Value Label	N
condition	1.00	netspeak	20
	2.00	english	17
	3.00	own words	16

Descriptive Statistics

	condition	Mean	Std. Deviation	N
AFbefore	netspeak	11.8000	3.87434	20
	english	12.1765	4.40504	17
	own words	11.4375	3.72324	16
	Total	11.8113	3.94216	53
AFafter	netspeak	11.4000	3.92562	20
	english	12.0588	4.45071	17
	own words	13.5625	4.11451	16
	Total	12.2642	4.17479	53

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	time	Type III Sum of Squares	df	Mean Square	F	Sig.
time	Linear	7.540	1	7.540	1.460	.233
time * condition	Linear	32.409	2	16.204	3.138	.052
Error(time)	Linear	258.157	50	5.163		

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
12.073	.518	11.032	13.113

2. condition

Measure: MEASURE_1

condition	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
netspeak	11.600	.839	9.914	13.286
english	12.118	.910	10.289	13.946
own words	12.500	.938	10.615	14.385

3. time

Measure: MEASURE_1

time	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	11.805	.553	10.694	12.916
2	12.340	.573	11.189	13.492

4. condition * time

Measure: MEASURE_1

condition	time	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
netspeak	1	11.800	.896	9.999	13.601
	2	11.400	.929	9.533	13.267
english	1	12.176	.972	10.223	14.129
	2	12.059	1.008	10.034	14.083
own words	1	11.438	1.002	9.424	13.451
	2	13.563	1.039	11.476	15.649

General Linear Model

Between-Subjects Factors

		Value Label	N
condition	1.00	netspeak	20
	2.00	english	17
	3.00	own words	16

Descriptive Statistics

	condition	Mean	Std. Deviation	N
EAbefore	netspeak	17.7500	3.25859	20
	english	17.9412	2.65684	17
	own words	17.6875	2.27211	16
	Total	17.7925	2.74814	53
EAafter	netspeak	19.6500	3.48342	20
	english	18.5882	3.39225	17
	own words	18.2500	3.29646	16
	Total	18.8868	3.38924	53

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	time	Type III Sum of Squares	df	Mean Square	F	Sig.
time	Linear	28.220	1	28.220	4.022	.050
time * condition	Linear	10.454	2	5.227	.745	.480
Error(time)	Linear	350.810	50	7.016		

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	35227.906	1	35227.906	2845.612	.000
condition	9.787	2	4.894	.395	.676
Error	618.986	50	12.380		

Estimated Marginal Means

1. Grand Mean

Measure: MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
18.311	.343	17.622	19.001

2. condition

Measure: MEASURE_1

condition	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
netspeak	18.700	.556	17.583	19.817
english	18.265	.603	17.053	19.477
own words	17.969	.622	16.719	19.218

3. time

Measure: MEASURE_1

time	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	17.793	.386	17.017	18.569
2	18.829	.469	17.887	19.771

4. condition * time

Measure: MEASURE_1

condition	time	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
netspeak	1	17.750	.626	16.492	19.008
	2	19.650	.760	18.123	21.177
english	1	17.941	.679	16.577	19.305
	2	18.588	.824	16.932	20.244
own words	1	17.688	.700	16.281	19.094
	2	18.250	.850	16.543	19.957

Appendix 12: Experiment 3: Email invitation

Hello [Name],

Many thanks for your interest in taking part in this experiment on communication in Internet-Based Therapies. Attached to this email are 4 documents. Please read them in order, they are:

1 - information sheet about this experiment
2 - consent form: please complete and return via email
3 - message board vignette: please read carefully
4 - questionnaire: please complete and return via email

In order to preserve anonymity, documents returned via email will be printed off immediately and the email deleted so that they cannot be matched. If you unhappy with this arrangement, then please let me know a postal address so that I can send you a stamped addressed envelope for you to return the documents.

Thank you for taking the time to complete this experiment. Should you have any questions, please contact me.

Kind regards,
Lu

Appendix 13: Experiment 3: Information sheet

Study Title: Communication in Internet-based therapy

Dear Sir/Madam,

As part of my doctoral thesis, I am conducting research into communication and the use of language when discussing uncomfortable or distressing topics on the Internet. The research is being supervised by Dr Chris Fullwood. This letter has been written to provide you with all the information on the study to enable you to decide if you wish to take part. Please read it carefully and ask any questions if you would like any further information or if it is not clear. Thank you for your time.

Study

The purpose of the study is to explore the way in which people choose to write about uncomfortable or distressing topics on the Internet. The study will be completed via the Internet so if you choose to take part in the study, information and materials will be sent via email. You will be asked to read a piece of text and then write a brief synopsis of what it said. The text may contain potentially emotionally distressing material. You will also be asked to complete a short questionnaire asking about your practice, which will have no identifying information, and your experience of the study.

Confidentiality, anonymity & withdrawal

You will not be required to give any identifying information. As such, all data is both confidential and anonymous. You have to right to withdraw at any time during the experiment without giving a reason. You will be asked to save your data with a generic file name and not include any personal information. Although you will return your data by email, this address will be seen only by the researcher and immediately deleted once the data has been downloaded.
The data collected will be seen by the researcher, supervisors and the examiners only. The results of the study may be published in professional journals and presented at conferences. These will also be reported in a way that preserves confidentiality.

Further information and contact details

After reading this information if you would like to participate in this study, please contact Lu Daynes in order to book a time to take part. :
l.a.d@wlv.ac.uk
If you have any concerns or questions about this study or the way it has been carried out, you can contact Dr Chris Fullwood at the University of Wolverhampton:
C.Fullwood@wlv.ac.uk

Appendix 14: Experiment 3: Consent form

CONSENT FORM

Study Title: Communication in Internet-based therapy
Name of Researcher: Lu Daynes

Please cross each box to show that you have read and understood it *(this can be done by clicking on the box)*

- I confirm that I have read and understand the information sheet of the above study and have had the opportunity to ask questions via email or telephone ☐
- I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. ☐
- I understand that I will be expected to read a piece of text and write a short synopsis of what it said ☐
- I understand that the text may contain potentially emotionally distressing Material ☐
- I understand that I will be expected to complete a short questionnaire about myself but that it will contain no identifiable information ☐
- I agree to take part in the above study. ☐

Name of ~~Person~~ ~~Date~~ _____ Signatur~~e~~ _____

(Please use blocked capitals)

Appendix 15: Experiment 3: Netspeak vignette

21.07.2011 14.33

It started when I was 7 my uncl used 2 sa me. I felt really ☹ n angry @ e fact dt I wasn't able to tell my mum dt my so called uncle was sa. When my mum died of cancer he used 2 come round all the time. @ skool ppl used 2 bully me cus i told em my dad killed me mum. Afta my mum died I started sh becos I was tired of being bullied by my mates @ school. Idk what made me try. I started 2 make myself sick when it got 2 much. @ 15 my periods stopped + I thought I was pg. I couldn't let the ppl @ skool find out so I od'd. My sista found me + called the ambulance. At the hospital the doc asked me about ed. I tried to persuade e doc dt I ddnt od. At wk I met this lad who was now my bf + and he was ok wid me buh I used to freeze up wen it came to sex + he used to hit me + then buy me a drink afta 2 make it up 2 me. Afta e 2 started sa wen I refused to let im av his way wid me. I started to be sick again – pg n he was vry ☺ and we got a flat togeva. Afta bby gl arrived he started 2 get irritated at e thought of e bby crying. He slammed me into e wall + hit me. My neighbours called e police but he hd taken off be4 ey got here. Ey also called ss to tak my bby away frm me + I felt I ws an unfit mother hu cudnt protect herself. I tried su again buh woke up to find myself in a psychiatric hosp. I will neva stop sh or ed but bn takin ads + is helping. Av tried nt to tell e doc abt e sa buh i av a feelin he's figured it out. I fnk am getting betta as i dnt sh lyk i used to. Am luking forward to avn my bby wid me sn. I av neva talked about csa be4. Idk what 2 do nxt.

Thx 4 listening to my ranting.

Appendix 16: Experiment 3: Questionnaire

Please complete the following information by **clicking** on the appropriate response. For each question, please choose only **one** response.

Age	20-30	☐
	31-40	☐
	41-50	☐
	51-60	☐
	61+	☐

Sex Male ☐ Female ☐

Years of Practice 1-2 ☐ 3-4 ☐ 5-6 ☐ 7-8 ☐ 9-11 ☐
12-15 ☐ 16-18 ☐ 19-21 ☐ 21-24 ☐ 25+ ☐

How often do you use a computer?

Daily	once ☐	2-3hours ☐	4-5hours ☐	6-7hours ☐	8+ ☐
Weekly	once ☐	2-3days ☐	4-5 days ☐	6 days ☐	
Monthly	once ☐	twice ☐	3times ☐		

Don't regularly use a computer ☐

How often do you use the Internet?

Daily	once ☐	2-3hours ☐	4-5hours ☐	6-7hours ☐	8+ ☐
Weekly	once ☐	2-3days ☐	4-5days ☐	6days ☐	
Monthly	once ☐	twice ☐	3times ☐		

Don't regularly use the Internet ☐

Do you use a mobile phone? Yes ☐ No ☐

If yes, is it a smartphone? *(iphone, blackberry)* Yes ☐ No ☐

What do you use it for? *(cross all that apply)*
Phone calls ☐ text messaging email/internet ☐
Listening to music/watching tv/films ☐
Social networking (facebook/twitter etc) ☐
Only have it for emergencies ☐

Have you ever used or offered therapeutic services on the Internet?

Always ☐ Regularly ☐ Sometimes ☐ Occasionally ☐ Never ☐

Thank you for reading the attached piece of text. Please use the space below to write a brief summary of what it said. Please try to spend no more than 15 minutes on this activity.

When you have finished writing, please answer the following questions.

Was this activity… easy ☐ difficult ☐

What was your level of understanding of the text?

Very easy ☐ easy ☐ ok ☐ difficult ☐ very difficult ☐

Did you understand the terms used?

All of them ☐ Most of them ☐ Some of them ☐ None of them ☐

Did you look up/ask someone what any of the terms meant?

All of them ☐ Most of them ☐ Some of them ☐ None of them ☐

Appendix 17: Experiment 3: SPSS output

Regression

Descriptive Statistics

	Mean	Std. Deviation	N
level of understanding of vignette	12.6136	5.67772	22
age range	2.0455	.95005	22
internet usage per day (hours)	1.9091	.68376	22
offered internet therapy?	4.7273	.55048	22
computer usage per day (hours)	2.4545	.91168	22
years of practice	2.5909	1.68068	22

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	age range[a]	.	Enter
2	internet usage per day (hours)	.	Enter
3	offered internet therapy?	.	Enter
4	computer usage per day (hours)	.	Enter
5	years of practice	.	Enter

a. All requested variables entered.

b. Dependent Variable: level of understanding of vignette

Model Summary[f]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.158[a]	.025	-.024	5.74494	.025	.511	1	20	.483	
2	.402[b]	.162	.074	5.46449	.137	3.106	1	19	.094	

3	.411[c]	.169	.030	5.59051	.007	.153	1	18	.700	
4	.437[d]	.191	.001	5.67452	.022	.471	1	17	.502	
5	.454[e]	.206	-.043	5.79716	.014	.288	1	16	.599	1.921

a. Predictors: (Constant), age range

b. Predictors: (Constant), age range, internet usage per day (hours)

c. Predictors: (Constant), age range, internet usage per day (hours), offered internet therapy?

d. Predictors: (Constant), age range, internet usage per day (hours), offered internet therapy?, computer usage per day (hours)

e. Predictors: (Constant), age range, internet usage per day (hours), offered internet therapy?, computer usage per day (hours), years of practice

f. Dependent Variable: level of understanding of vignette

ANOVA[f]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.878	1	16.878	.511	.483[a]
	Residual	660.088	20	33.004		
	Total	676.966	21			
2	Regression	109.614	2	54.807	1.835	.187[b]
	Residual	567.352	19	29.861		
	Total	676.966	21			
3	Regression	114.398	3	38.133	1.220	.331[c]
	Residual	562.568	18	31.254		
	Total	676.966	21			
4	Regression	129.563	4	32.391	1.006	.432[d]
	Residual	547.402	17	32.200		
	Total	676.966	21			
5	Regression	139.254	5	27.851	.829	.548[e]
	Residual	537.712	16	33.607		
	Total	676.966	21			

a. Predictors: (Constant), age range

b. Predictors: (Constant), age range, internet usage per day (hours)

c. Predictors: (Constant), age range, internet usage per day (hours), offered internet therapy?

d. Predictors: (Constant), age range, internet usage per day (hours), offered internet therapy?, computer usage per day (hours)

e. Predictors: (Constant), age range, internet usage per day (hours), offered internet therapy?, computer usage per day (hours), years of practice

f. Dependent Variable: level of understanding of vignette

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	10.683	2.964		3.604	.002	4.501	16.866					
	age range	.944	1.320	.158	.715	.483	-1.809	3.696	.158	.158	.158	1.000	1.000
2	(Constant)	19.367	5.677		3.411	.003	7.485	31.250					
	age range	-.119	1.393	-.020	-.086	.933	-3.034	2.795	.158	-.020	-.018	.812	1.231
	internet usage per day (hours)	-3.410	1.935	-.411	-1.762	.094	-7.460	.640	-.402	-.375	-.370	.812	1.231
3	(Constant)	24.041	13.283		1.810	.087	-3.865	51.948					
	age range	-.238	1.457	-.040	-.163	.872	-3.298	2.822	.158	-.038	-.035	.777	1.287
	internet usage per day (hours)	-3.531	2.003	-.425	-1.762	.095	-7.740	.678	-.402	-.384	-.379	.793	1.261
	offered internet therapy?	-.889	2.271	-.086	-.391	.700	-5.660	3.883	-.051	-.092	-.084	.952	1.050
4	(Constant)	22.995	13.569		1.695	.108	-5.632	51.623					
	age range	-.085	1.495	-.014	-.057	.955	-3.240	3.069	.158	-.014	-.012	.760	1.316

	internet usage per day (hours)	-3.112	2.123	-.375	-1.466	.161	-7.591	1.368	-.402	-.335	-.320	.728	1.374
	offered internet therapy?	-.379	2.422	-.037	-.157	.877	-5.489	4.730	-.051	-.038	-.034	.863	1.159
	computer usage per day (hours)	-1.008	1.468	-.162	-.686	.502	-4.105	2.090	-.254	-.164	-.150	.856	1.169
5	(Constant)	24.383	14.100		1.729	.103	-5.509	54.274					
	age range	-.633	1.837	-.106	-.345	.735	-4.527	3.261	.158	-.086	-.077	.525	1.903
	internet usage per day (hours)	-3.057	2.171	-.368	-1.408	.178	-7.660	1.546	-.402	-.332	-.314	.726	1.377
	offered internet therapy?	-.677	2.535	-.066	-.267	.793	-6.052	4.698	-.051	-.067	-.059	.822	1.217
	computer usage per day (hours)	-1.137	1.519	-.183	-.748	.465	-4.357	2.084	-.254	-.184	-.167	.834	1.199
	years of practice	.522	.973	.155	.537	.599	-1.539	2.584	.160	.133	.120	.599	1.669

a. Dependent Variable: level of understanding of vignette

Excluded Variables[e]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	internet usage per day (hours)	-.411[a]	-1.762	.094	-.375	.812	1.231	.812
	offered internet therapy?	-.026[a]	-.115	.910	-.026	.975	1.025	.975

	computer usage per day (hours)	-.250[a]	-1.143	.267	-.254	.999	1.001	.999
	years of practice	.103[a]	.372	.714	.085	.665	1.504	.665
2	offered internet therapy?	-.086[b]	-.391	.700	-.092	.952	1.050	.777
	computer usage per day (hours)	-.173[b]	-.793	.438	-.184	.944	1.059	.768
	years of practice	.083[b]	.316	.756	.074	.664	1.507	.586
3	computer usage per day (hours)	-.162[c]	-.686	.502	-.164	.856	1.169	.728
	years of practice	.120[c]	.429	.673	.104	.614	1.628	.526
4	years of practice	.155[d]	.537	.599	.133	.599	1.669	.525

a. Predictors in the Model: (Constant), age range

b. Predictors in the Model: (Constant), age range, internet usage per day (hours)

c. Predictors in the Model: (Constant), age range, internet usage per day (hours), offered internet therapy?

d. Predictors in the Model: (Constant), age range, internet usage per day (hours), offered internet therapy?, computer usage per day (hours)

e. Dependent Variable: level of understanding of vignette

Descriptive Statistics

	Mean	Std. Deviation	N
level of understanding of vignette	12.6136	5.67772	22
P subjective perception of understanding	3.0556	.72536	18

Correlations

			level of understanding of vignette	P subjective perception of understanding
Spearman's rho	level of understanding of vignette	Correlation Coefficient	1.000	-.378
		Sig. (1-tailed)	.	.061
		N	22	18
	P subjective perception of understanding	Correlation Coefficient	-.378	1.000
		Sig. (1-tailed)	.061	.
		N	18	18

Appendix 18: Study 3: Qualitative scoring grid